

Prepared for:
City of Sonoma



FINAL

Urban Water Management Plan

2010



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KEY ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments	SV	Sonoma Valley
Act	Urban Water Management Planning Act	SVCSD	Sonoma Valley County Sanitation District
AFY	Acre-feet per year	SVGMP	Sonoma Valley Groundwater Management Plan
BMP	Best Management Practice	SVRWP	Sonoma Valley Recycled Water Project
Board	City of Sonoma Board of Directors	Tier 1	Tier 1 conservation measures
BO	Biological Opinion	Tier 2	Tier 2 conservation measures
cfs	Cubic feet per second	UFW	Unaccounted-for water
CDPH	California Department of Public Health	USGS	U.S. Geological Survey
CII	Commercial, irrigation and institutional	UWMP	Urban Water Management Plan
City	City of Sonoma	WWTP	Wastewater treatment plant
CUWCC	California Urban Water Conservation Council		
DFG	California Department of Fish and Game		
DMM	Demand Management Measure		
DWR	California Department of Water Resources		
ETo	Evapo-transpiration of common turf grass		
gpcd	Gallons per capita per day		
gpd	Gallons per day		
HETs	High-efficiency toilets		
mgd	Million gallons per day		
MCL	Maximum contaminant level		
MOU	Memorandum of Understanding		
NBWRP	North Bay Water Recycling Project		
ND	New development standards and conservation measures		
NMFS	National Marine Fisheries Service		
PG&E	Pacific Gas and Electric		
PVP	Potter Valley Project		
Restructured Agreement	Restructured Agreement for Water Supply		
River	Russian River		
SCWA	Sonoma County Water Agency		
SBx7-7	Senate Bill 7, Water Conservation Act 2009		
SDC	Sonoma Development Center		
SWRCB	California Water Resources Control Board		

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SECTION 1 PLAN PREPARATION

1.1 INTRODUCTION

The State Legislature has declared that “every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.” This Urban Water Management Plan (UWMP) was prepared in close coordination with City of Sonoma (City) staff to ensure that it is reasonable in addition to meeting the requirements of the Urban Water Management Planning Act as envisioned by the Legislature.

1.1.1 Purpose

The purpose of developing an UWMP is to evaluate whether a water supplier can meet the water demands of its water customers as projected over a 20- or 25-year planning horizon. This evaluation is for a 25-year planning horizon and is accomplished through analysis of current and projected water supply and demand for normal, single-dry, or multiple-dry water year conditions. In addition, the purpose of the UWMP is to:

- Identify measures to be implemented or projects to be undertaken to reduce water demands and address water supply shortfalls;
- Identify stages of action to address up to 50 percent reduction in water supplies during dry water years;
- Identify actions to be implemented in the event of a catastrophic interruption in water supplies;
- Assess the reliability of the sources during normal, single-dry, and multiple-dry water years; and
- Identify when, how, and what measures the City could undertake in order to meet the State Legislature’s call for a 20 percent per capita reduction in urban water use statewide by 2020.

The City supplies potable water to a population of approximately 10,800 people and approximately 300 businesses. The City’s potable water supply is primarily water purchased from the Sonoma County Water Agency (SCWA) and water pumped from six groundwater wells owned and operated by the City. The SCWA water supply is delivered to the City via the SCWA aqueduct system and is supplied with water from the natural flow of the Russian River.

1.1.2 Law

The State of California Urban Water Management Planning Act (Act) is codified in California Water Code Sections 10610 through 10656 and requires each urban water supplier with 3,000 or more connections, or which supplies at least 3,000 acre-feet per year (AFY) of water, to submit a UWMP to the California Department of Water Resources (DWR) every five years. The City has approximately 4,358 connections and meets the threshold for this State requirement.

For the current 2010 UWMP, a new requirement, SBx7-7, was passed by the California legislature and approved by the Governor. The bill amended the Act to require a 20 percent statewide reduction in urban potable water use by the year 2020. The water use reduction required by each water supplier varies by region and includes water savings targets measured in daily per capita use to be met by 2020 as well as an

interim water savings target to be met by 2015. Each water supplier's 2010 UWMP will establish the 2010 baseline use from which targeted reductions are made, making the 2010 UWMP a particularly important document. Because of the new requirements, SBx7-7 extended the due date for submittal of the UWMP to DWR to July 1, 2011.

1.1.3 Structure of the Plan

The outline of this UWMP generally follows the *Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan* developed by the DWR. The guidelines can be found in the following website link: <http://www.water.ca.gov/urbanwatermanagement/guidebook/>.

Some sections of the outline presented in the guidelines have been combined or arranged in a different order than the guidelines, but all the information requested in the UWMP guidelines and Act is provided within this document. This document is organized in six (6) sections and appendices as shown on the table that follows. The table also includes a description of the key elements in the sections.

Table 1.1
Structure of the Plan

Section	Title	Key Elements
1	Plan Preparation	Introduction
		Coordination
		Plan Adoption, Submittal and Implementation
2	System Description	Service Area Physical Description
		Service Area Population
3	System Demands	Baselines and Targets
		Water Demands
		Water Demand Projections for Retailers
		Water Use Reduction Plan
4	System Supplies	Water Sources
		Groundwater
		Transfer Opportunities
		Desalinated Water Opportunities
		Recycled Water Opportunities
5	Water Supply Reliability and Water Shortage Contingency Planning	Future Water Supply Projects
		Water Supply Reliability
		Water Shortage Contingency Planning
		Drought Planning
6	Demand Management Measures (DMMs)	Water Quality
		Description of DMMs
		Implementation of DMMs

1.1.4 Level of Planning

The Act specifies the required content of each UWMP and allows for the level of detail provided in each UWMP to reflect the size and complexity of the water supplier. The Act requires projections in five-year increments for a minimum of 20 years. This UWMP considers a 25-year planning horizon through year 2035.

1.1.5 Assumptions

The evaluation and projections in this document are based on the City's current understanding of its water supply contract with the SCWA and its planned (future) water supply projects. This document is a "living" document (i.e., intended to be updated every five years) and as the City's water supply picture changes, the updated UWMP will incorporate those changes accordingly.

1.2 COORDINATION

This section describes the various agencies, districts and stakeholders that were involved or the City communicated with to obtain input and information in preparing this UWMP.

1.2.1 Agency Coordination

The City meets regularly with other water purveyors. In particular, the City meets at least monthly with SCWA and with other water contractors who purchase water from the SCWA. This monthly coordination has been instrumental in coordinating water supply and demand analyses for the preparation of this document. The City meets more often with the Valley of the Moon Water District, also a water contractor to the SCWA water supply, because of its shared delivery system through the SCWA aqueduct system that transports water from the Russian River to Sonoma Valley.

The table below identifies the various agencies that the City is coordinating with during the UWMP preparation process.

Table 1.2 (DWR Table 1)
Coordination with Appropriate Agencies

Coordinating Agencies	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan ^a	Was sent a notice of intention to adopt	Not involved/ No information
Sonoma County Water Agency	✓	✓		✓	✓	✓	
Sonoma Valley County Sanitation District	✓			✓	✓	✓	
Valley of the Moon Water District	✓			✓	✓	✓	
City of Santa Rosa	✓			✓	✓	✓	
City of Rohnert Park	✓			✓	✓	✓	
City of Cotati	✓			✓	✓	✓	
City of Petaluma	✓			✓	✓	✓	
Town of Windsor	✓			✓	✓	✓	
North Marin Water District	✓			✓	✓	✓	
Marin Municipal Water District	✓			✓	✓	✓	
Sonoma Valley Basin Advisory Panel	✓			✓	✓	✓	
Sonoma Ecology Center	✓			✓	✓	✓	
County of Sonoma				✓	✓	✓	✓

1.2.2 Public Participation

Urban water suppliers are required by the Act to encourage active involvement of the community within the service area prior to and during the preparation of its UWMP. The Act also requires urban water suppliers to make a draft of the UWMP available for public review and to hold a public hearing regarding the findings of the UWMP prior to its adoption. The City also included a public notice in the two local newspapers notifying the public of the City's intent to prepare its UWMP and asked for public input during the preparation of the UWMP.

The following table identifies the public participation activities and the participants.

Table 1.3
Public Participation and Outreach

Date	Description	Participants
2010-2011	UWMP planning and coordination, discussion, projections at quarterly Water Advisory Committee (WAC) meetings	WAC Members, General Public
Feb. 3, 2011	Public notice of UWMP preparation	[Sonoma Sun]
Feb. 11, 2011	Public notice of UWMP preparation	[Sonoma Index-Tribune]
Feb. 11, 2011	Letters sent to Interested Parties	See List on Table 1.2 (DWR Table 1)
May 23, 2011	Public Hearing notice #1	[Press Democrat]
May 23, 2011	Draft UWMP 2010 released	City Council, General Public
May 31, 2011	Public Hearing notice #2 of public hearing	[Sonoma Index-Tribune]
Jun. 6, 2011	Draft UWMP 2010 public hearing	City Council, General Public

The findings and the Draft UWMP were presented before the City Council on June 6, 2011. The meeting was publicly noticed and the public given the opportunity to offer comments to the UWMP and to ask questions regarding the findings. A copy of the Council resolution of adoption is included in Appendix A.

1.3 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

The UWMP was adopted on June 6, 2011. The Final UWMP incorporates comments made by the City Council, the Sonoma County Water Agency and the public. The Final UWMP is available for public viewing at the following website link: <http://www.sonomacity.org>. A copy of the Final UWMP will be submitted to the DWR and to the California State Library no later than 30 days after adoption by the City Council (see Appendix A for copy of transmittal letter). Comments and response to comments to the Final UWMP made by the DWR will be added to the website for the public's information. A copy of the UWMP, along with any comments or response to comments, will be made available for public viewing at City Hall during normal business hours.

Implementation of the 2010 Final UWMP will generally be the responsibility of the Public Works Director and consists of the activities shown on Table 1.4.

Table 1.4
Plan Implementation

Description	Guidance Document(s)	Activity	Timeframe
Water supply projects and Capital Improvement Program (CIP)	2010 Water Supply Plan, J. Nelson, July 2010	Preparation of Annual CIP for water supply projects	March, 2011-2015
Water supply reliability	Final UWMP	Continued coordination and collaboration with SCWA to acquire consistent Russian River water supply entitlement in accordance with water supply contract	Monthly meetings with Water TAC and quarterly meetings with WAC
Water demand reduction targets	SBx7-7, Final UWMP, City Water Conservation Program	Ongoing tracking of GPCD and modifying Water Use Reduction Plan as needed	15% reduction by 2015; 20% reduction by 2020
Water conservation ordinance amendment	Water shortage contingency plan in Final UWMP	Modify existing ordinance to incorporate elements from the revised contingency plan	2012

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SECTION 2 SYSTEM DESCRIPTION

This section describes the physical characteristics of the City's water service area as well as current and projected population for the service area.

2.1 PHYSICAL AND POLITICAL ATTRIBUTES

The City of Sonoma (City) is located approximately 50 miles northeast of San Francisco at the southern end of Sonoma County (Figure 2.1). The City's water service area encompasses the city limits, as well as the Sonoma County jurisdictional area to the east of the city limits, and pocket areas that have outside service area (OSA) agreements with the City along Thornsberry Road, Lovall Valley Road, East Napa Road, East MacArthur Street, and Denmark Street. The service area is approximately 2.5 square miles and serves primarily residential and commercial customers. Elevations in the existing service area range from approximately 55 feet above mean sea level to approximately 518 feet above mean sea level.

The water distribution system contains three pressure zones that are each served by one or more storage tanks. The principal water mains in the distribution system range in size from 6 to 16 inches. Most of the distribution grid piping in the older sections of the City range in size from 1-1/2 to 4 inches, while the newer areas are served by pipes 6 to 8 inches in diameter.

2.2 CLIMATE

The climate of the City is typical of that of the eastern Sonoma County and western Napa County areas, characterized by summers that are dry and warm, and winters that are relatively mild with the majority of rainfall occurring during the rainy season (November through March). The regional averages of the rate of evapo-transpiration of common turf grass (ET_o), rainfall, and temperature are summarized in Table 2.1.

Table 2.1
Climate

	Standard average ET _o ^a , in	Average rainfall, in	Average Max/Min temperature ^b
January	1.0	6.21	57.2°F / 37.2°F
February	1.6	5.27	63.3°F / 39.9°F
March	3.0	4.05	66.5°F / 40.7°F
April	4.5	1.77	71.2°F / 42.2°F
May	5.6	0.82	77.3°F / 45.9°F
June	6.6	0.23	84.1°F / 49.7°F
July	7.1	0.03	88.6°F / 51.2°F
August	6.3	0.09	88.4°F / 50.7°F
September	4.7	0.34	86.3°F / 49.3°F
October	3.3	1.63	78.7°F / 45.4°F
November	1.5	3.87	66.0°F / 40.6°F
December	1.0	5.12	57.5°F / 37.0°F
Annual	46.2	29.43	73.8°F / 44.2°F

^a ET_o, or evapo-transpiration, is the loss of water from evaporation and transpiration from plants; Data from Chapter 2.7 Model Water Efficient Landscape Ordinance, CCR, Appendix A.

^b Period of record: 1/1/1893 to 7/31/2010 from Western Regional Climate Center, <http://www.wrcc.dri.edu>.

Station number 048351, Sonoma/Boyes Hot Springs, CA

The average annual rainfall is 29.4 inches and ETo for the region is approximately 46.2 inches. ETo is a measurement of water evaporation combined with plant transpiration and is expressed in the form of a rate, typically inches per time period. In other words, ETo is the amount of water needed for common turf to grow in a specific region.

The average annual ETo for the region is approximately 17 inches more than the average annual precipitation. Because of this difference, and because 90 percent of the annual precipitation occurs between the months of November and April, growing turf in this region requires a significant amount of irrigation during the dry season.

2.3 SERVICE AREA POPULATION

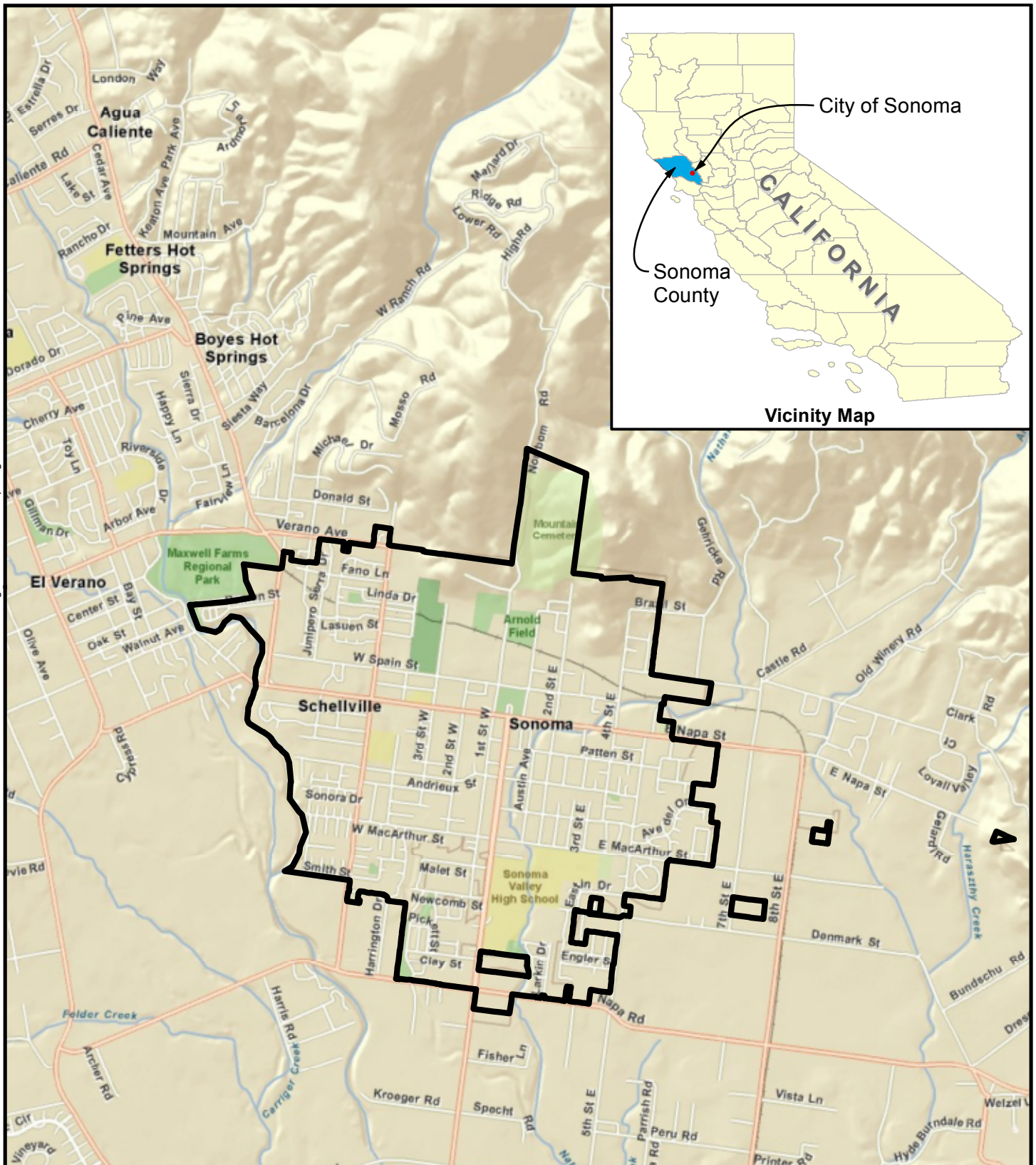
The City's service area includes pocket areas of outside service area (OSA) connections located in the Sonoma County jurisdictional area. The sources for the population projections are:

- City of Sonoma General Plan 2020, dated October 2006 (GP);
- Projections 2009, Association of Bay Area Government (ABAG);
- City of Sonoma Growth Management Ordinance adopted February 20, 2008 (GMO); and
- Department of Finance, 2010 Census (DOF).

Table 2.2 (DWR Table 2) uses DOF estimates for 2010. For 2015 and beyond, GMO estimates are used within city limits. New OSA connections for Sonoma County jurisdictional areas are estimated at a growth rate of 5 new (residential) service connections per year.

Table 2.2 (DWR Table 2)
Population – Current and Projected

Year	2010	2015	2020	2025	2030	2035
Population - In City Limits	10,648	11,358	12,067	12,777	13,486	13,628
Population - Outside City Limits (OSA)	778	791	804	817	830	843
Total Population (In-City and OSA)	11,426	12,149	12,871	13,594	14,316	14,471

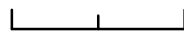


Legend



Sonoma City Limits

0 0.25 0.5 Miles



1 inch = 1 miles



Sources: ESRI, DeLorme, AND,
Tele Atlas, First American: Permit and
Resource Management Department
(PRMD), County of Sonoma, California

Figure 2.1 Water Service Area Map

City of Sonoma
2010 Urban Water Management Plan



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SECTION 3 SYSTEM DEMANDS

This section of the Urban Water Management Plan (UWMP) presents the actual and projected number of water accounts and annual water use in five-year increments between 2005 and 2035.

3.1 BASELINES AND TARGETS

One of the new requirements for completing an UWMP in 2010 under Senate Bill x7-7 (SBx7-7), the Water Conservation Act of 2009, is the requirement for each urban water supplier to develop a baseline daily per capita water use, establish a per capita water use target for 2020, and an interim water use target for 2015.

3.1.1 Base Daily Per Capita Water Use

The base daily per capita water use is the water supplier's average gross daily per capita use in gallons. The baseline includes all water entering the delivery system, including water losses, except for recycled water delivered within the supplier's service area, water placed into long-term storage, or water conveyed to other urban water suppliers.

The purpose of developing a baseline daily per capita water use figure is to have a baseline from which to derive the 2015 and 2020 water use targets. The base daily per capita water use is developed for each water supplier based on a 10-year average beginning no earlier than 1994 and ending no later than 2010. In some circumstances, water suppliers may use 15-year or five-year averages.

For the development of the City of Sonoma's (City's) base daily per capita water use, a 10-year average from 1994 to 2004 was used. The City does not have a recycled water supply.

**Table 3.1 (DWR Table 13)
Base Period Ranges**

Base	Parameter	Value	Units
10- to 15-Year Base Period	2008 total water deliveries	2,376	AFY
	2008 total volume of delivered recycled water	0	AFY
	2008 recycled water as a percent of total deliveries	0	percent
	Number of years in base period ^a	10	years
	Year beginning base period range	1995	--
	Year ending base period range ^b	2004	--
5-Year Base Period	Number of years in base period	5	years
	Year beginning base period range	2003	--
	Year ending base period range ^c	2007	--

^a If the 2008 recycled water percent is less than 10 percent, then the base period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the base period is a continuous 10- to 15-year period.

^b The ending year must be between December 31, 2004 and December 31, 2010.

^c The ending year must be between December 31, 2007 and December 31, 2010.

As shown in Table 3.2 (DWR Table 14), the City's base daily per capita water use is 216 gallons per capita per day (gpcd). The base daily per capita water use was developed using the total service area population which includes the population within the city limits as well as the estimated population outside the city limits but within the City's service area. The gross water use includes all water entering the water delivery

system, including water losses. This was calculated by adding all well production to water purchase, as reported annually to the DWR on PWSS reports.

Table 3.2 (DWR Table 14)
Base Daily Per Capita Water Use — 10-Year Range (AFY)

Base Period Year		Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year			
Year 1	1995	9,394	690	201
Year 2	1996	9,600	742	212
Year 3	1997	9,782	780	218
Year 4	1998	9,861	747	208
Year 5	1999	9,980	802	220
Year 6	2000	10,258	809	216
Year 7	2001	10,238	837	224
Year 8	2002	10,339	876	232
Year 9	2003	10,485	843	220
Year 10	2004	10,561	811	210
Base Daily Per Capita Water Use				216

A second requirement for completing the 2010 UWMP is that the City determine its 5-year base daily per capita water use. If the 5-year base daily water use exceeds 100 gpcd, then the 2020 water use target established by the City must be less than or equal to 95 percent of this 5-year baseline. As shown in Table 3.3 (DWR Table 15), the 5-year base daily per capita water use is 204 gpcd.

Table 3.3 (DWR Table 15)
Base Daily Per Capita Water Use — 5-Year Range (AFY)

Base Period Year		Distribution System Population	Daily System Gross Water Use (mgd)	Annual Daily Per Capita Water Use (gpcd)
Sequence Year	Calendar Year			
Year 1	2003	10,485	843	220
Year 2	2004	10,561	811	210
Year 3	2005	10,619	776	200
Year 4	2006	10,663	755	194
Year 5	2007	10,689	754	193
Base Daily Per Capita Water Use				204

3.1.2 Water Use Targets (2015, 2020)

The purpose of SBx7-7 is to establish requirements for the state of California to reduce its statewide urban per capita water use by 20 percent by the year 2020. An interim target is set for 2015 which requires a 10 percent reduction in urban per capita water use. After year 2021, failure to meet the 2020 water use target constitutes a violation of law. Compliance with the 2015 and 2020 water use targets is also a requirement for eligibility for State water grants and loans.

3.1.2.1 Individual Agency Targets

Under SBx7-7, each individual urban water supplier (i.e., the City) must develop a water use target for year 2020 using one of four allowable methods. The 2015 interim target is a water use target that is halfway between the base daily per capita water use of 216 gpcd and the 2020 water use target. There is no penalty for an agency not achieving its 2015 interim target.

There are four methods established by the California Department of Water Resources (DWR), the agency charged with establishing such methodologies under the legislative act, which the City may use to develop 2015 and 2020 water use targets. Three methods are provided in SBx7-7 and the fourth was subsequently established by the DWR. The four methods are generally described below. A more complete description can be found in the DWR's *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* dated March 2011.

- Method 1 : 80 percent of Base Daily Per Capita Use;
- Method 2: Performance standards based on actual water use data for indoor residential water use, landscaped area, and commercial, industrial and institutional (CII) water use;
- Method 3: 95 percent of the San Francisco Bay hydrologic region (see Figure 3.1); and
- Method 4: Savings by water sector (indoor residential and CII) and landscape and water loss savings.

The City has elected to use Method 1 for the development of its individual water use target. Based on the City's base daily per capita use of 216 gpcd, the City's per capita water use targets in comparison to the projected per capita water use are shown in Table 3.4.

Table 3.4
Water Use Targets for City of Sonoma

Year	Projected Water Use, AFY ^a	Population ^b	Projected Per Capita Water Use, gpcd	SBx7-7 Water Use Target, gpcd	Meets Target?
2015	2,605	12,149	191	195	Yes
2020	2,643	12,871	183	173	No

^a From Table 3.XX (DWR Table 11)

^b Population projections from Section 2

Once the water use targets are determined, SBx7-7 requires confirmation that the water use targets meet the minimum water use reduction established by statute, as described in Section 3.1.1. In the City's case, the 2020 water use target established must be less than or equal to 95 percent of 204 gpcd (194 gpcd).

3.1.2.2 Regional Targets

SBx7-7 provides that urban water retail suppliers may plan, comply and report on the 2020 water use target on a regional basis, an individual basis, or both. The City is one of nine water contractors to the Sonoma County Water Agency (SCWA) for purchase of Russian River water supply. The water contractors are eligible to form a regional alliance, under the provisions of SBx7-7 because the water contractors are recipients of water from a common wholesale water supplier, SCWA. A water conservation regional alliance among the nine water contractors is already in existence and comprises the Sonoma-Marin Saving Water Partnership, thereby effectively combining the regional water conservation efforts in a regional alliance for the purpose of coordinating conservation programs and meeting regional water use targets. The members of the alliance are: City of Sonoma, City of Santa Rosa, Town of Windsor, City of Rohnert Park, City of Cotati, City of Petaluma, Valley of the Moon Water District, Marin Municipal Water District, and North Marin Water District.

DWR established three options for calculating a regional alliance target. The City, along with the other water contractors in the regional alliance, selected Option 1 for establishing the regional alliance target. Option 1 consists of each member of the regional alliance calculating their individual target and then weight the individual targets by each member's population. The weighted targets are then averaged to determine the regional alliance target. Detailed calculations under the regional alliance can be found in Appendix B. The regional alliance per capita water use targets in comparison to the projected per capita water use are shown in Table 3.5.

Table 3.5
Regional Water Use Targets

Year	Projected Water Use, AFY ^a	Population ^b	Projected Per Capita Water Use, gpcd	SBx7-7 Water Use Target, gpcd	Meets Target?
2015	95,032	637,687	133	142	Yes
2020	94,602	659,825	128	129	Yes

^a Projected use for Regional Alliance members (see Appendix B)

^b Population projections for Regional Alliance members (see Appendix B)

City Council approved becoming a member of the regional alliance and using regional targets at its Council meeting of April 18, 2011. A copy of the letter approving the City's membership in the regional alliance is included in Appendix C.

Becoming a member of the regional alliance will allow the City to meet the 2020 regional compliance target and also will help the water contractors focus efforts on regional water conservation programs that the City intends to actively engage in through the Sonoma-Marín Saving Water Partnership. This regional effort provides for an "economies of scale" cost benefit for implementing regional programs and also provides for a consistent water conservation message throughout the region.

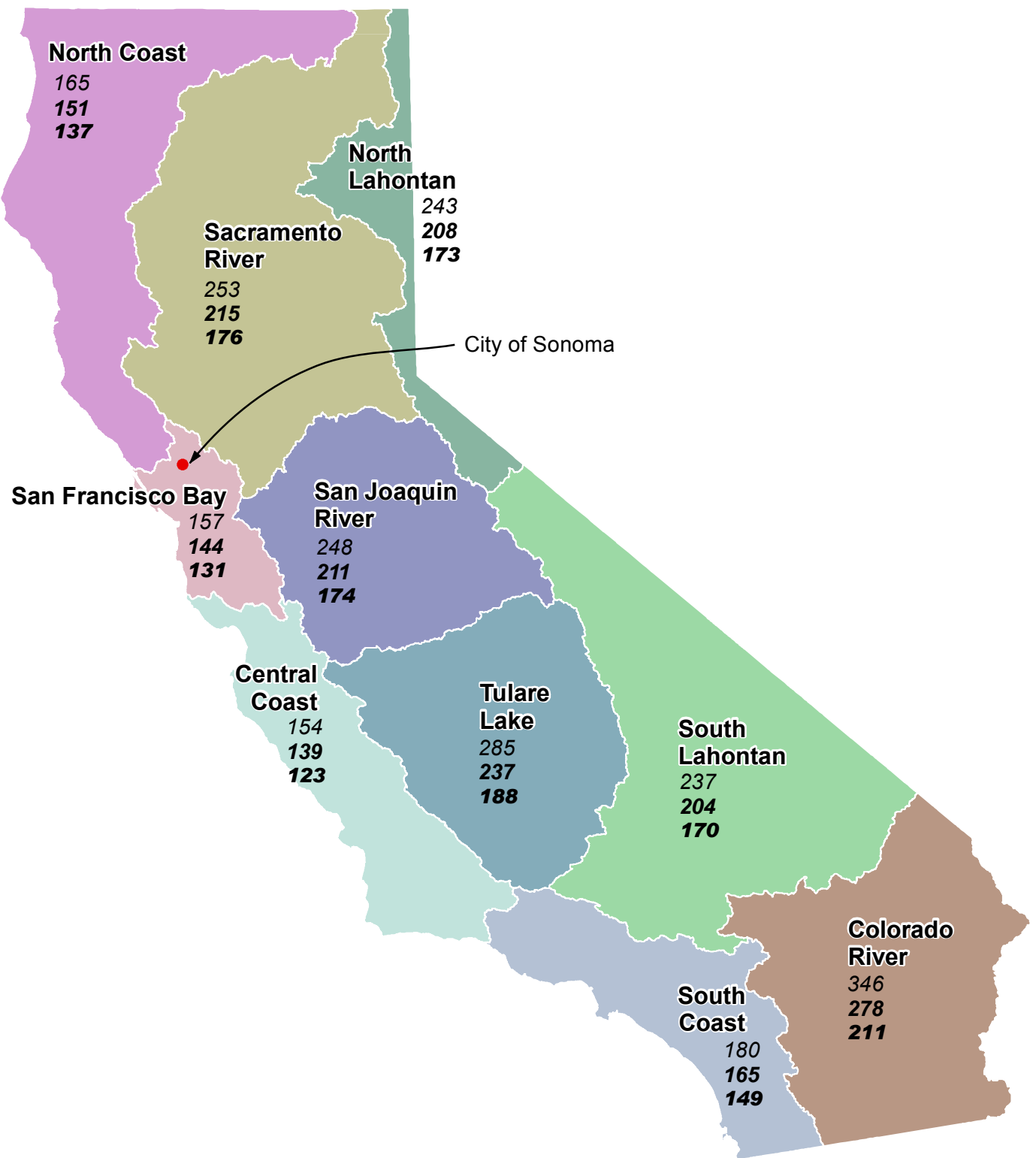
Although the City, together with the alliance members, can meet the regional targets, it is the City's intent to pursue a more aggressive water conservation implementation plan than what is included in this UWMP. The implementation plan will be developed in the next five years, in time for the 2015 UWMP update with the goal of meeting its 2020 individual water use target of 173 gpcd.

3.2 WATER DEMANDS

The water demand and water conservation savings analysis was conducted by John Olaf Nelson Water Resource Management and presented in a report entitled *2010 Water Plan and Water Rate and Connection Charge Study* dated July 2010 ("John Nelson Report"). Excerpts and water demand data from the John Nelson Report are directly used in this section. A copy of the John Nelson Report can be found online at the following website link: www.sonomacity.org.

3.2.1 Past and Current Water Deliveries

Water use in the City's service area is predominantly residential use. The residential customers number approximately 87 percent of the total water billing accounts and are approximately 75 percent of the total water deliveries. Commercial customers are the next largest customer type and are approximately 7 percent of the total water billing accounts but are approximately 13 percent of the total water deliveries.



Legend
Region Water Use Targets
 in gallons per capita per day
157 Baseline (1995-2005)
144 Interim Target (2015)
131 2020 Target

0 40 80 Miles
 1 inch = 81 miles



Sources: Department of Water Resources (DWR) Hydrologic Regions

Figure 3.1
Hydrologic Region Map

City of Sonoma
 2010 Urban Water Management Plan

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Past customer water use for the year 2005, as presented in Table 3.6 (DWR Table 3) was obtained from actual billing data. Breakdowns for the various water use sectors come from the John Nelson Report, Figure 11. Note that for the purposes of this UWMP, commercial and municipal (institutional) use has been combined to conform to the breakdown provided the City in its annual reports to DWR.

Table 3.6 (DWR Table 3)
Water Deliveries — Actual, 2005 (AFY)

Water Use Sectors	2005				
	Metered		Not Metered		Total Volume
	# of Accounts	Volume	# of Accounts	Volume	
Single family	3,789	1,234	-	-	1,234
Multi-family	256	364	-	-	364
Commercial/ Institutional ^a	327	281	-	-	281
Landscape	60	138	-	-	138
Other (Fire sprinklers)	126	151	-	-	151
Total	4,558	2,168	-	-	2,168

^a Institutional and commercial uses are combined in the City's billing category.

Current customer water use for year 2010, as presented in Table 3.7 (DWR Table 4) is also based on actual billing data for the various water use sectors.

Table 3.7 (DWR Table 4)
Water Deliveries — Actual, 2010 (AFY)

Water Use Sectors	2010				
	Metered		Not Metered		Total Volume
	# of Accounts	Volume	# of Accounts	Volume	
Single family	3,488	1,034	-	-	1,034
Multi-family	269	273	-	-	273
Commercial/ Institutional	335	243	-	-	243
Institutional/ Governmental	-	-	-	-	-
Landscape	75	116	-	-	116
Other (Fire sprinklers)	191	131	-	-	131
Total	4,358	1,797	-	-	1,797

3.2.2 Projected Water Deliveries

The water demand forecast in the John Nelson Report also served as the basis for predicting rate and charge increases and was therefore done on a fiscal year basis (July 1 – June 30). The base year or “planning estimate” base year for the forecast was fiscal year ending (FYE) 2009. In order to predict future water use based on normal hydrologic conditions and absent abnormal externalities such as drought and severe economic downturn, the planning estimate base year was calculated from historic trends rather than actual billing data for that year. Specific defects with using actual 2009 billing data was (a) weather conditions in the summer of 2009 was cooler than normal, (b) in late spring, summer and fall of both 2008 and 2009, customers were asked to ration water and (c) consumption was depressed due to consumer reaction to a severe downturn in the economy that significantly impacted local employment and tourism. In the John Nelson Report, FYE 2009 demand was calculated using least squares regression of 30 years of demand.

The John Nelson Report also projected demand in terms of equivalent single-family dwelling use demands (ESD). One ESD is equal to 247 gallons per day per dwelling unit. The projected water delivery for the estimated buildout year in 2031 is 2,481 acre-feet per year. For the projections in five-year increments between 2010 and 2035, this projected growth rate was assumed to be a linear increase of 1.2 percent per year for each five-year increment through 2031. The stated projected demand for 2035 is estimated to be the same as for 2031. The account numbers and demand volume for 2010 are actual numbers.

The land use and population assumptions for the water use projections are based on the City's 2020 General Plan and the current Housing Element, as well as the City's Growth Management Ordinance. For a discussion on the population projections, see Section 2. The 2010 Census data was used as a general reference when determining population and household sizes for the City's service area.

Table 3.8 (DWR Table 5)
Water Deliveries — Projected, 2015 (AFY)

Water Use Sectors	2015				
	Metered		Not Metered		Total Volume
	# of Accounts	Volume	# of Accounts	Volume	
Single family	3,530	1,407	-	-	1,407
Multi-family	272	346	-	-	346
Commercial/ Institutional	339	469	-	-	469
Landscape	76	173	-	-	173
Other	193	74	-	-	74
Total	4,410	2,469	-	-	2,469

Table 3.9 (DWR Table 6)
Water Deliveries — Projected, 2020 (AFY)

Water Use Sectors	2020				
	Metered		Not Metered		Total Volume
	# of Accounts	Volume	# of Accounts	Volume	
Single family	3,572	1,469	-	-	1,469
Multi-family	275	361	-	-	361
Commercial/ Institutional	343	490	-	-	490
Landscape	77	180	-	-	180
Other (Fire sprinklers)	196	77	-	-	77
Total	4,463	2,577	-	-	2,577

For account and water use projections for the year 2035, it was assumed that buildout will occur in 2031.

Table 3.10 (DWR Table 7)
Water Deliveries — Projected, 2025, 2030, and 2035 (AFY)

Water Use Sectors	2025		2030		2035	
	Metered		Metered		Metered	
	# of Accounts	Volume	# of Accounts	Volume	# of Accounts	Volume
Single family	3,615	1,530	3,658	1,592	3,666	1,604
Multi-family	279	376	282	391	283	394
Commercial/ Institutional	347	510	351	531	352	535
Landscape	78	188	79	196	79	197
Other	198	81	200	84	201	84
Total	4,517	2,685	4,571	2,793	4,580	2,814

3.2.3 Water Sold to Other Agencies

The City did not have water sales to other agencies. At the time of the writing of this UWMP, the City is in preliminary discussion with the Valley of the Moon Water District (VOMWD) regarding an agreement for the sale and purchase of water during times of emergency (such as during an extreme hot spell or during a drought). Data for the potential agreement with VOMWD is not included in Table 3.11 (DWR Table 9) because the discussions have been preliminary and informal.

Table 3.11 (DWR Table 9)
Sales to Other Water Agencies (AFY)

Water Distributed	2005	2010	2015	2020	2025	2030	2035
Name of Agency	-	-	-	-	-	-	-
Total	0	0	0	0	0	0	0

3.2.4 Actual and Projected “Other” Water Demands

Table 3.12 (DWR Table 10) shows unaccounted-for water which is defined to be the difference between water produced and water sold to customers. This differential between water supply and metered water use includes system flushing, leak repair flushing, hydrant leaks, street sweeping and known leaks that are subsequently repaired. The remainder is “unaccounted-for” water, that is, un-metered water and/or water leaking from the system. Unaccounted-for water can also result from meter inaccuracies. Unaccounted-for water is estimated before the result of conservation programs is calculated and increases due to an increase in overall demand.

Within the past three years, the City’s unaccounted-for water has been approximately 8 percent and is below the industry average of 10 percent loss (maximum). It is assumed that the City’s water loss will remain at 8 percent consistently through 2035.

The City has no other uses such as, for example, groundwater recharge or conjunctive use at this time. Table 3.12 (DWR Table 10) shows actual losses for 2005 and 2010 and estimates losses for the years 2015 through 2035.

Table 3.12 (DWR Table 10)
Additional Water Uses and Losses (AFY)

Water Use	2005	2010	2015	2020	2025	2030	2035
Saline Barriers	-	-	-	-	-	-	-
Groundwater Recharge	-	-	-	-	-	-	-
Conjunctive Use	-	-	-	-	-	-	-
Raw Water	-	-	-	-	-	-	-
Recycled Water	-	-	-	-	-	-	-
Unaccounted-for System Losses	214	155	215	224	233	243	245
Other (define)	-	-	-	-	-	-	-
Total	214	155	215	224	233	243	245

3.2.5 Summary of Total Water Use

Table 3.13 identifies the projected conservation savings from the John Nelson Report. Savings from Plumbing Code requirements are not included in the savings below as they are already accounted for in the water delivery projections in the previous tables.

Table 3.13
Conservation Savings (AFY)

Existing Tier 1, Tier 2 Program and New Development Standards					
	2015	2020	2025	2030	2035
Conservation Savings (Tier 1, Tier 2 + NDS)	79	159	238	317	333

Table 3.14 (DWR Table 11) summarizes the actual water use in 2005 and 2010 and projects water use for years 2015 through 2035. As with previous tables, water use for years 2005 and 2010 are actual water use figures.

Table 3.14 (DWR Table 11)
Total Water Use (AFY)

Water Use	2005	2010	2015	2020	2025	2030	2035
Total Water Deliveries (from Tables 3.6 to 3.10)	2,168	1,797	2,469	2,577	2,685	2,793	2,814
Sales to Other Water Agencies (from Table 3.11)	--	--	0	0	0	0	0
Less Conservation Savings (from Table 3.13)	--	--	(79)	(159)	(238)	(317)	(333)
Additional Water Uses and Losses (from Table 3.12)	214	155	215	224	233	243	245
Total	2,382	1,952	2,605	2,642	2,680	2,719	2,726
Note: Total water use in 2005 and 2010 are actual numbers and already account for conservation savings.							

3.2.6 Lower Income Water Use Projections

SBx7-7 includes a new requirement for identifying water use projections for lower income households. Under the statute, a lower income household is as defined under the California Health and Safety Code and is established to be 80 percent of the median income, adjusted for family size. Based on City of Sonoma data from the *2005-2009 American Community Survey*, the estimated 80 percent median income is approximately \$48,490 and lower income households are estimated to comprise approximately 42.6 percent of the total households. Table 3.15 (DWR Table 8) shows the projected water demands for lower income households, and is based on 42.6 percent of single family and multi-family residential projected water use.

Table 3.15 (DWR Table 8)
Lower-Income Projected Water Demands (AFY)

Water Distributed	2015	2020	2025	2030	2035
Single-family residential	600	626	652	678	683
Multi-family residential	147	154	160	167	168
Total	747	779	812	845	851

3.3 WATER DEMAND PROJECTIONS FOR RETAILERS

The City's water supply primarily comes from water purchased from the SCWA. The City, along with eight other water contractors, has a water supply agreement with the SCWA for the purchase of Russian River water. A copy of the agreement, commonly referred to as the *Restructured Agreement for Water Supply* (Restructured Agreement).

The City has provided the demand projections to SCWA. However, as discussed in Section 3.2.2, the projected 2015 and subsequent year's water demands are based on a 2010 planning estimate. It is not

known how much of this projected amount will actually occur and the City will be coordinating and working closely with the SCWA to determine the timing of capital improvement projects that may need to come online in order to deliver the City's water demands.

Table 3.16 (DWR Table 12) provides the projected amount of water that the City expects to purchase from the SCWA to meet water demands in the future under normal water supply conditions. The remaining demand will be met with a combination of the City's own groundwater wells, water conservation implementation, and recycled water implementation. The SCWA's water supply, the City's groundwater and recycled water supply are further described in Section 4.0. The City's water conservation implementation is further described in Section 6.

2010 water use is not representative of normal water use characteristics for the SCWA and its customers (water contractors). From 2007 – 2010, the SCWA and the water contractors water use was significantly affected by a number of factors including drought conditions, implementation of water shortage response plans, economic recession, increases in residential and commercial vacancy, and decreases in tourism. Lasting effects of the drought, water shortage, and economic recession, as well as a cool summer, significantly affected the SCWA and water contractors' 2010 water use and is not representative of normal water use characteristics.

Table 3.16 (DWR Table 12)
Retail Agency Demand Projections Provided to Wholesale Suppliers (AFY)

Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
Sonoma County Water Agency	3000 (max.)	1,952	2,355	2,392	2,485	2,576	2,626
SVCSO (Recycled Water)	0	0	0	0	0	0	50

The methodology used for the SCWA and Water Contractors demand projections for 2015 through 2035 are based on normal water use characteristics and do not incorporate the effects of the conditions described above. Because of this methodology, the 2015 water demand projection, in particular, may be higher than what may likely occur. Due to the uncertainty regarding economic recovery, a range of 2,355 to 2,555 acre-feet per year for the demand projection for 2015 has been provided. If the economic recovery is slower than expected, the lower end of the demand projection range, 2,355 acre-feet per year may be more likely to occur in 2015. If the economic recovery is strong, the higher end of the demand projection, 2,555 acre-feet per year as shown in Table 3.16 (DWR Table 12) may be more likely to occur in 2015. The Water Contractors will be coordinating and working closely with the SCWA to determine the timing of capital improvement projects that may need to come online in order to meet the water demand in response to the economy recovery.

As shown in Table 3.16 (DWR Table 12), the City also plans to include recycled water to its water supply portfolio. The City is in discussion with the Sonoma Valley County Sanitation District (SVCSO) for the supply and delivery of recycled water. Because the cost of the conveyance and delivery system to serve City customers would be expected to be paid with grant funding, it is estimated that the system would not come online until 2035.

3.4 WATER USE REDUCTION PLAN

The phrases Best Management Practices (BMPs) and Demand Management Measures (DMMs) are used interchangeably throughout the John Nelson Report and also referred to in this UWMP as "conservation measures." The City's water use reduction plan is detailed in the John Nelson Report. The report identified

current and projected savings from the City's conservation programs. The programs include the following conservation program categories:

- Tier 1. Tier 1 consists of BMPs that were originally identified and established by the California Urban Water Conservation Council (CUWCC). A Memorandum of Understanding (MOU) was voluntarily signed by many urban water agencies and environmental groups who pledged to develop and implement 14 conservation BMPs. The City became a signatory to the MOU on January 18, 2002.
- Tier 2. Tier 2 consists of conservation measures beyond Tier 1. City staff conducted a review and screening of various conservation measures that included a water savings device or program that would result in a reduction in water uses. Tier 2 measures that were selected by the City for implementation include the measures listed on Section 3.4.2 below.
- New Development Standards (NDS). These are a subset of Tier 2 measures which apply to new development. Conservation savings resulting from Cal Green building codes have been included as this affects all new development in California after January 1, 2011. The City's ordinance for Cal Green was adopted and became effective on January 1, 2011.

3.5 WATER DEMAND REDUCTION GOALS AND PROGRAMS

Based on the programs identified in the section above, the John Nelson Report identified a conservation savings by year 2035 of 282 acre-feet per year plus 51 acre-feet per year for the SVCSD direct-install program, for a total of 333 acre-feet. This amount of conservation savings is a result of Tier 1, Tier 2 and NDS. Also included in the conservation savings of 333 acre-feet per year are savings resulting from State-mandated plumbing code changes in the Building Code.

3.6 IMPLEMENTATION PLAN FOR GPCD REDUCTION

The implementation plan is discussed in detail in the John Nelson Report. The implementation plan is summarized in the tables that follow and includes the listed conservation measures. Note that CUWCC BMP #4, metering, is not listed because all of the City's accounts are metered, and therefore, that BMP is already achieved.

Table 3.17
Tier 1 Measures for Implementation

CUWCC #1 – Residential Water Surveys, Interior	CUWCC #1 – Residential Water Surveys, Outdoor
CUWCC #2 – High Efficiency Fixtures, Residential	CUWCC #3 – System Water Loss Reduction
CUWCC #5a – Large Landscape Water Budgets	CUWCC #5b – Large Landscape Audits
CUWCC #6 – Washer Rebates	CUWCC #7 – Residential Public Education
CUWCC #8 – School Programs	CUWCC #9 – Commercial Water Audits
CUWCC #11 - Water Conservation Coordinator	CUWCC #14 – Residential Single Family Toilet Replacement

Table 3.18
Tier 2 Measures for Implementation

T2-1, Rain sensor shut-off device rebates	T2-2, Cash-for-grass rebates
T2-3, Link conservation water budget to water bill	T2-3, Separate irrigation meter retrofit incentives
T2-4, Smart controller rebates	T2-5, Irrigation equipment upgrade incentives
T2-6, Hotel equipment retrofit incentives	T2-7, Synthetic turf rebate
T2-8, HE toilet rebate, Commercial	T2-9, CII water efficient equipment replacement rebates

Table 3.19
New Development Standards (NDS) for Implementation

NDS 1, Rain-sensors and shut-off valves for new single-family connection	NDS 2, Smart controller for new single-family connection
NDS 3, HE toilets for new single-family connection	NDS 4, HE dishwasher for new single-family connection
NDS 5, HE clothes washer for new single-family connection	NDS 6, Hot water on demand for new single-family connection
NDS 7, HE faucets and shower heads for new single-family connection	NDS 8, Landscape and irrigation requirements (WELO)
NDS 9, ½-gallon urinals for commercial connection	

The City's service area has a relatively high proportion of residential and commercial water use and a significant amount of outdoor water use. Consequently, commercial and outdoor conservation programs produce the most savings. The City's implementation plan includes a projected water conservation savings of 333 acre-feet per year by year 2035 from the measures described above.

3.6.1.1 Current Plan and Economic Impacts

A comprehensive life cycle benefit/cost (B/C) analysis based on estimated out-of-pocket costs of conservation programs recommended in the John Nelson Report was performed and is set forth in Section 4.4.3 of the report. From the City water utility's perspective, comparing Tier 2 and NDS type conservation measures to the alternative cost of new local well expansion, B/C ratios ranged from a high of 4.5 for Smart Controllers targeting large irrigation accounts to a low of 0.6 for "hot water on demand" program targeting typical single-family customers. The analysis further showed that ratios for indoor conservation measures would improve markedly if the SVCSD (the local provider of sewer service) were to change its current flat rate annual residential billing policy to one marking the charge a function of winter water use. In this instance for example, the B/C ratio for "hot water on demand" program (the only program recommended that had a B/C ratio lower than 1.0) would increase from 0.6 to 1.8.

To address future water supply needs, the John Nelson Report examined the unit present value (PV) considering capital, maintenance, and operating costs over the next 30 years of the recommended conservation strategies including new local well expansion and recycled water use.

In summary, the present value cost per acre-foot to the City and its water customers of supply sources including conservation and reuse as stated in the John Nelson Report are:

- Conservation measures - \$979
- Local well water expansion/replacement - \$983
- Existing SCWA supply (including anticipated mitigation costs) - \$1,1,32
- Recycled water use for potable water offsets - \$1,686

Recycled water would need to be funded with grant subsidies in order to make this water supply source an economically feasible option to the City.

3.6.1.2 Additional Measures for Future Discussion

As discussed in Section 3 of this UWMP, it is the City's intent to pursue a more aggressive water conservation implementation plan than what is described in this section. The implementation plan will be developed and completed in the next five years, in time for the 2015 UWMP update with the goal of meeting the City's 2020 individual water use target of 173 gpcd. The future implementation plan will likely include additional measures that target outdoor water use and also identify measures that would reduce water use from commercial businesses that serve the City's tourist industry.

SECTION 4

SYSTEM SUPPLIES

This section describes the surface water, groundwater and recycled water supply sources, quantities, supply constraints, and future water supply projects. The City of Sonoma (City) primarily uses surface water purchased from the Sonoma County Water Agency (SCWA) and to a lesser degree, local groundwater supply. The City proposes to use recycled water in the future.

4.1 SCWA WATER SUPPLY

Under normal water year conditions, approximately 95 percent of the City's water supply is surface water purchased from the SCWA. More detailed information regarding the SCWA's water supply and facilities can be found in the SCWA's Urban Water Management Plan (UWMP) at the following link: www.scwa.ca.gov/uwmp/. A general description of the SCWA Water Supply and Transmission System follows.

4.1.1 SCWA Water Supply and Transmission System

The City's water supply is conveyed through the Sonoma Aqueduct and is at the terminus of 16 turnouts along the Sonoma Aqueduct that is owned and operated by the SCWA. The turnouts are spread along the aqueduct from just north of Trinity Road and Highway 12 south to Verano Avenue and Fifth Street West near the City. The SCWA aqueduct system is supplied water from the natural flow of the Russian River. Russian River water is stored in winter behind Warm Springs Dam for later release from Lake Sonoma; and, water stored in winter and other times of the year behind Coyote Dam for later release from Lake Mendocino. These dams are federal projects under the jurisdiction of the U.S. Army Corps of Engineers (Corps). The SCWA is the local sponsor and partners with the Corps for the water supply portion of the reservoir projects. The SCWA owns and operates the water supply pools at both Lake Sonoma and Lake Mendocino. The water supply pool of Lake Sonoma is 212,000 acre-feet and Lake Mendocino is 111,000 acre-feet.

The SCWA also owns and operates three groundwater supply wells located in the Santa Rosa Plain groundwater basin. Information and sufficiency analysis of the SCWA groundwater wells can be found in the SCWA's UWMP at the website link noted earlier in this report.

The SCWA uses about 14 miles of the natural channel of Dry Creek and about 8 miles of the Russian River to convey water from Lake Sonoma to its diversion facilities. Water is diverted from the stretch of river located just upstream of Wohler Bridge and downstream of Mirabel via six Ranney Collectors. Because the water has gone through an array of intake laterals, it only needs the addition of chlorine to meet California Department of Public Health drinking water quality standards. A system of aqueducts, booster pumps, and tanks then distribute the water to the various water contractors and other water transmission system customers, including the Marin Municipal Water District. The system was designed and planned to meet peak day demands of its customers (see Figure 4.1).

The existing Sonoma Aqueduct facilities south of the Oakmont community in Santa Rosa serve the Valley of the Moon Water District and the City of Sonoma. The main booster pump station for the aqueduct is the Sonoma BST and is located on the east side of Spring Lake. A minor booster pump station is the Eldridge booster pumping station located near Glen Ellen and is typically off-line. Two water storage above-ground tanks are located near Oakmont known as Annadel No. 1 and Annadel No. 2 (also referred to as Los

Guillicos Tank) and a third tank known as Eldridge Tank. A series of two tanks near First Street West, where the aqueduct terminates, is where the City pulls water from the aqueduct.

More detailed information regarding the SCWA's water supply and facilities can be found in the SCWA's UWMP.

4.2 OTHER EXISTING AND PLANNED WATER SOURCES

The City uses local groundwater supply and proposes to use recycled water in the future. A detailed discussion of the City's groundwater supply is included in Section 4.3. A discussion of the City's proposed recycled water supply is included in Section 4.4.

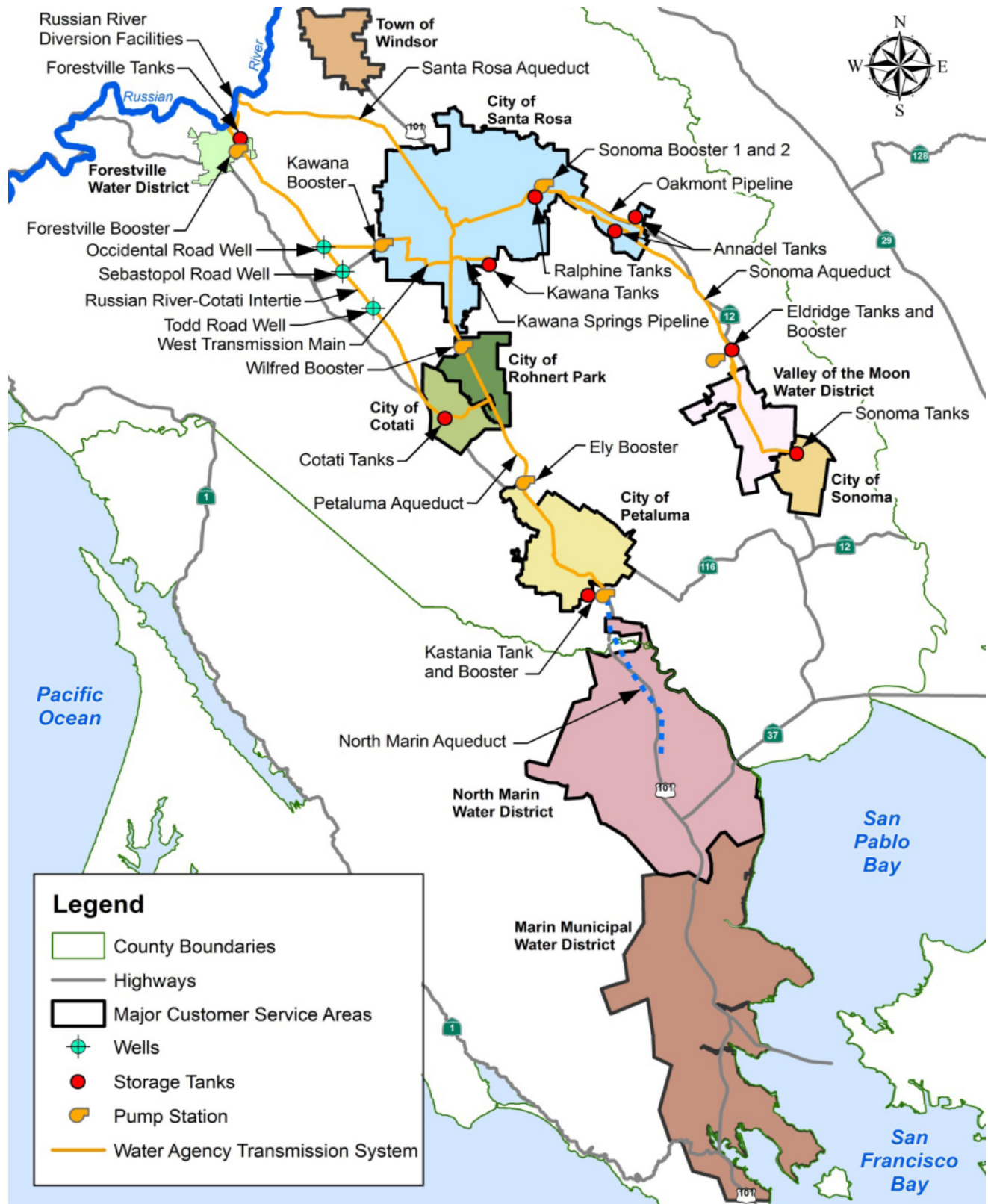
4.3 GROUNDWATER

The City's water supply comes predominantly from purchased surface water from the SCWA. In a normal water year, approximately 5 percent of the City's water supply is from local groundwater supply wells.

This section provides a description of the groundwater wells, the Sonoma Valley Groundwater Management Plan (SVGMP) prepared since the last UWMP, updated hydrogeology of the basin, the City's groundwater supply and water quality, as well as the sufficiency of the groundwater for projected groundwater pumping. The groundwater supply facilities are described in Section 2. The description of the groundwater basin that supplements the SCWA's supply is described in the SCWA's 2010 UWMP and is not repeated in the City's UWMP.

4.3.1 General Description

The City is currently using its own groundwater wells to help meet demand. It is the City's intent to use its wells to meet peak summer month demands and not on a year round basis. The City pumps groundwater from a total of four active and one pending active local wells that all supplement the water obtained from the SCWA. The City owns two additional wells but does not run them due to either arsenic or boron just above or near the maximum contaminant levels (MCLs) allowed in California drinking water. These wells have the capacity to produce 190 gallons per minute (gpm) (Well #5) and 125 gpm (Well #7), and can be used in an emergency for up to 15 days out of each year with notification to CDPH for Well #5 and if the permit for Well #7 was finished. In 2010, the arsenic level in Well #5 was below the MCL, at 8.7ug/L but in past years, it has been above 10ug/L. They are not considered as part of the active system the City runs. The City wells, indicating their well capacity are as follows:



Source: Sonoma County Water Agency 2005 UWMP

Figure 4.1
SCWA Service Area and Water Transmission System Facilities

City of Sonoma
2010 Urban Water Management Plan

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Table 4.1
City Municipal Wells

Water Supply Sources		
Well No.	Nominal Capacity (gpm)	Current Status
1	460	Active
2	140	Pending Active, on one year monthly testing for contaminant of concern
3	140	Active
4	90	Pump is operated at reduced speed to prevent excessive drawdown
6	150	Active
Total	980	

Notes:

1. Well #5 has the capacity to produce 190gpm, but is on standby due to poor water quality and a limited sanitary seal. It can be used in emergency situations, upto 15 days of each year with notification to the CDPH.
2. Well #7 has the capacity to produce 125 gpm, but permitting was not complete with CDPH due to poor water quality. It is currently used as a monitoring well for SVGMP Program with transducer.

The total estimated capacity of the City's wells is approximately 980 gpm without the capacity of Well #5 and Well #7 for purposes of estimating the planning capacity in the well system. The wells are started and stopped manually by the operations staff. The total estimated sustainable capacity of the City's wells is 286 acre-feet per year. The capacity of the wells is more than the 286 acre-feet per year and the City can increase the use of the wells if needed for short periods of time in an emergency.

4.3.2 Groundwater Management Plan(s)

Between 2006 and 2007, the SCWA, City of Sonoma, Valley of the Moon Water District, and a broad range of stakeholders who live in the Sonoma Valley completed a groundwater management planning process to help ensure the long-term sustainability of the basin's groundwater resources. A groundwater management plan, consistent with Assembly Bill 3030 (and as subsequently modified by Senate Bill 1938) was prepared in 2007. A copy of the SVGMP can be found at the following link: <http://www.scwa.ca.gov/svgroundwater/>.

The SVGMP indicated that in the year 2000, more than half the water demand in the valley was met with groundwater (57 percent), followed by imported water (36 percent), with the remaining demand met from recycled water (7 percent) and local surface water (not quantified). The largest use of groundwater was for irrigation at 72 percent, with rural domestic use at 19 percent, and municipal/urban demand was only 9 percent (SVGMP, 2008). The SVGMP also indicated that the Sonoma Valley had experienced significant growth and land-use changes in the last 30 years, especially with regard to irrigated agriculture, such as vineyards. The SVGMP indicated that there were some areas of declining groundwater levels, potential water quality problems from sea water intrusion (south of the City's municipal wells), upwelling of geothermal waters and groundwater/surface-water interaction, all of which are being analyzed and updated annually as additional data and as analyses are completed and are available.

United States Geological Survey (USGS) modeling had been completed in 2006 (USGS, 2006) and was also used in the SVGMP to evaluate the effects of increasing demands on the groundwater between 2001 and 2030 and effects during normal and dry year weather scenarios. Based on the modeling effort, valley-wide

groundwater use was projected to increase from the 8,500 acre-feet per year in 2000 to an estimated 10,100-11,300 acre-feet per year in 2030. The increase in demand in Sonoma Valley pumping was estimated to result in a reduction of 16,000 to 22,000 acre-feet from aquifer storage and would likely result in lower groundwater levels and associated potential adverse impacts such as salinity intrusion, potential land subsidence, etc. The SVGMP program determined Basin Management Objectives (BMOs) are needed and should concentrate on:

- Maintaining groundwater elevations;
- Improved water use efficiency and conservation;
- Identifying and protecting groundwater recharge areas and enhance recharge where appropriate;
- Managing and protecting groundwater quality for beneficial uses including minimizing saline intrusion;
- Protecting against adverse interactions between groundwater and surface water flows; and
- Improving the community's awareness of groundwater planning, resources, and legal issues.

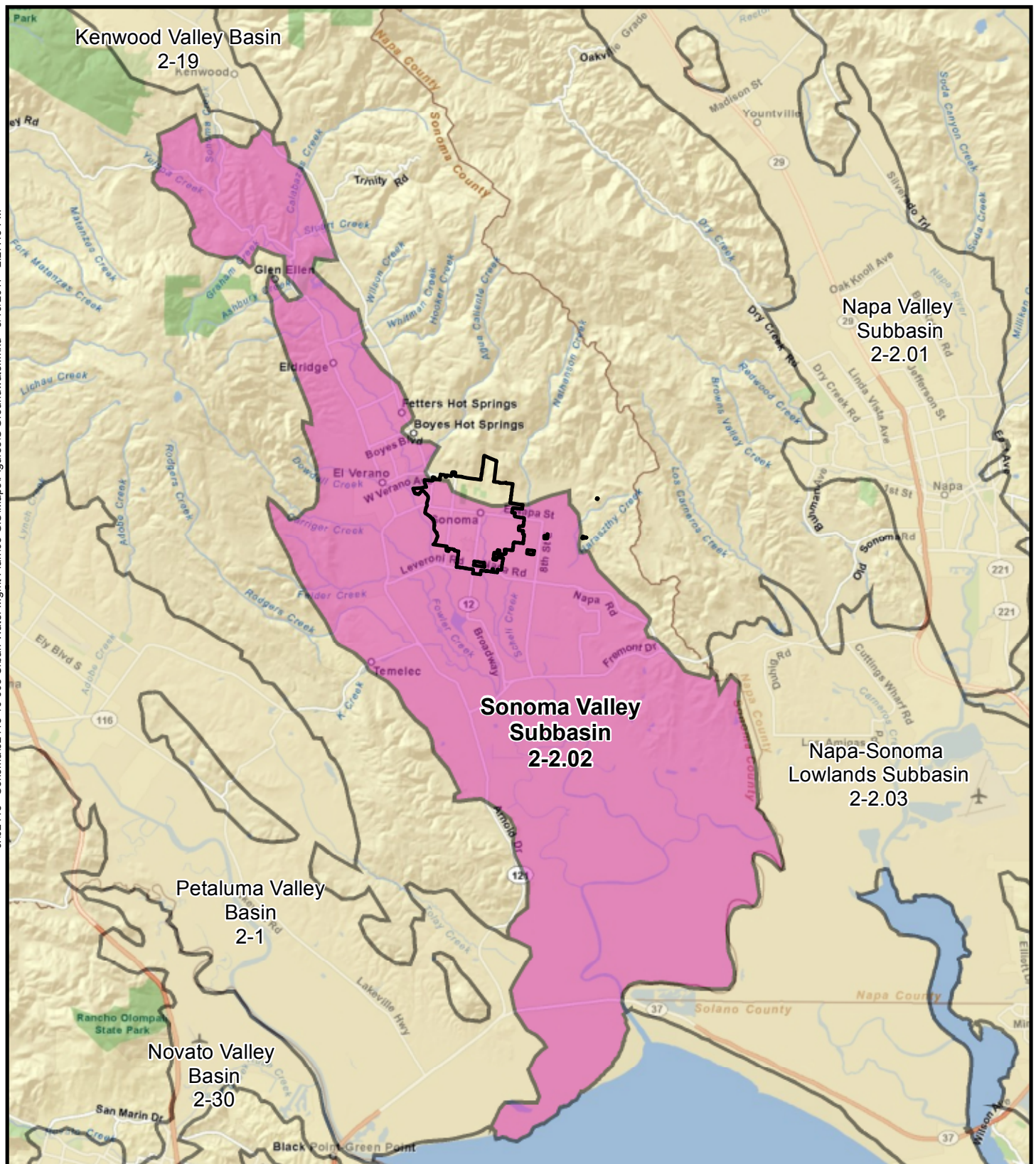
Each year since the SVGMP was prepared, an Annual Report has been prepared, summarizing the accomplishments of the prior year and then a workplan is prepared for the following year. In the 2009 Annual Report, the program indicated that coordinated groundwater level monitoring was expanded to include over 130 wells in the Sonoma Valley, and developed plans for long-term water quality monitoring. It also indicated that educational guides were prepared for property owners to better develop ways to conserve and manage groundwater.

The 2009 Annual Report separated the groundwater into two zones, one less than 200 feet (shallow) and one greater than 200 feet also (deeper), where groundwater levels were relatively stable and predominantly remain above sea level, but were as low as 45 feet below sea level in two deeper zone well areas. The report identified these two groundwater depression areas as being near where a couple of Valley of the Moon Water District municipal wells are located and the other located in the southeast portion of the City and southeast of the City. The report indicated it was unclear as to whether these are long-term trends, more recent trends, or from the drought years between 2007 and 2009. In 2010, the SCWA added a few pressure transducers in representative wells to further define the depression seen in the southwest portion of the City, so as to begin to better understand these indicated depressions. The 2010 Annual Report was not available by the production date of the UWMP.

The 2011 SVGMP workplan indicated goals to update the groundwater flow model to fully couple surface water and groundwater flow; develop educational materials to highlight current success stories of vintners water conservation practices; expand water quality monitoring; install two monitoring wells to further understand water quality concerns at multiple groundwater zones; and participate in development of the Salt and Nutrient Management Plan for Sonoma Valley.

4.3.3 Description of Groundwater Basin

In general, the City is located within the Sonoma Valley Groundwater Subbasin identified by the Department of Water Resources (DWR) as 2-2.02 and is a subbasin of the Napa-Sonoma Valley Groundwater Basin (2-2). The Sonoma Valley is one of three subbasins that drain south-southeast into San Pablo Bay (DWR, 2003) (Figure 4.2).



Legend

- Sonoma Valley Subbasin
DWR Basin Number 2-2.02
- Sonoma City Limits

0 1.25 2.5 Miles
1 inch = 3 miles



Sources: Department of Water Resources
(DWR) Hydrologic Regions: ESRI,
DeLorme, AND, Tele Atlas, First American

Figure 4.2 Groundwater Basin and Subbasin Map

City of Sonoma
2010 Urban Water Management Plan



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4.3.3.1 Hydrogeology of Basin

The Sonoma Valley is located within the North Coast Ranges geomorphic province of California. The Sonoma Mountains flank the west side of the subbasin with the Mayacmas Mountains bounding the basin to the east. The valley between the two mountain ranges is dominated by Sonoma Creek and is referred to as Sonoma Valley. Sonoma Valley is not uniform in width or slope and can be divided into three parts, based on topography. The middle part of the Valley is much narrower than the upper part or the lower part. This part of the Valley is where the City is located (USGS, 2006).

The water-bearing deposits underlying the City include younger and older Quaternary alluvium deposits, the Huichica and Glen Ellen Formations, and the Sonoma Volcanics. The thickness and extent (if any) of the Miocene to Pliocene Petaluma Formation beneath the City is unknown, and the Mesozoic Franciscan Complex bedrock is not exposed or encountered in wells (USGS, 2006a).

The younger Quaternary alluvium consists of stream channel, flood plain, alluvial fan, and salt marsh deposits of late Pleistocene to recent age. The younger alluvium has a large percentage of loose sand and gravel yielding water easily to wells; however, it is only a thin veneer and most wells penetrate the full thickness (Kunkel and Upson, 1960; USGS, 2006a).

The older Quaternary alluvium is composed of lenticular deposits of poorly sorted clay, silt, sand, and gravel, and is late Pleistocene in age. The older alluvium underlies the younger alluvium and is separated by an erosional unconformity (Kunkel and Upson, 1960). Wells that encounter sands and gravels in the older alluvium can yield as much as 500 to 1,000 gpm (Luhdorff & Scalmanini, 1999). According to the USGS, the Quaternary alluvium may be as much as 300 feet in the center of the Valley (USGS, 2006a).

Underlying the Quaternary alluvium is the Glen Ellen Formation of late Pliocene to early Pleistocene age. The Glen Ellen Formation was deposited by alluvial fans and is composed of poorly sorted lenticular beds of clay, silt, sand, and gravel, with much of the material being derived from the Sonoma Volcanics. The Glen Ellen Formation interfingers with the Sonoma Volcanics and the underlying Huichica Formation, and is up to 900 feet thick. Permeability is generally relatively low, but water obtained from the lenses of gravel can locally be sufficient for municipal use (USGS, 2006a).

The Huichica Formation is interbedded with and partly older than the Glen Ellen Formation. The Huichica is early Pleistocene to Pliocene in age and was deposited as alluvial fans by streams that drained uplifted areas of the Sonoma Volcanics. The formation also contains a thick body of clay and silt representing possible lake or swamp deposition. There are lenses of boulders or gravel with fine material within the fine-grained deposits. The Huichica's thickness exceeds 1,000 feet in parts of the Valley (USGS, 2006a). Large quantities of water are not able to be pumped from the formation and are mostly developed for domestic use (Kunkel and Upson, 1960 and Luhdorff & Scalmanini, 1999).

The Miocene to Pliocene Sonoma Volcanics consist of a variable sequence of volcaniclastic tuffs, lahars, debris and mudflows, and sedimentary units interbedded with volcanic flows of andesite, basalt, and rhyolite (USGS, 2006a). The significant aquifers in the volcanics are the tuffs which include pumice beds (Kunkel and Upson, 1960). The Sonoma Volcanics are highly variable in terms of yield. The City has four wells completed in this formation that yield between 100 and 420 gpm.

Recharge occurring in the Sonoma Volcanics is mainly from surface outcroppings in the mountains that border the Sonoma Valley (USGS, 2006a). Alluvium is recharged from percolation through sediments in local creeks and surface runoff (Luhdorff & Scalmanini, 1999).

4.3.3.2 Groundwater Quality and Quantity Issues

The quality of the City's water deliveries is regulated by the California Department of Public Health Services (CDPH), which requires regular collection and testing of water samples to ensure that the quality meets federal and state regulatory standards and does not exceed MCLs. Both the City and SCWA perform water quality testing, which has consistently yielded results within the acceptable regulatory limits.

Groundwater in Sonoma Valley is generally high in iron and manganese. Iron and manganese are regulated under the Secondary Drinking Water Standards MCLs because they are an aesthetic concern rather than a health risk. These metals can cause staining of plumbing fixtures and clothing. Both iron and manganese concentrations are below the MCLs in all of the City's wells.

Groundwater from the City's Well #5 has had arsenic above the MCLs in years past and therefore is not in currently in use, but is a standby for emergency use. In 2010, the arsenic level was at 8.7ug/L in the groundwater collected from Well #5.

Groundwater from the City's Well #2 has not been activated until recently. In 2003, groundwater from the well was analyzed for 1,2-Dibromoethane (EDB) and was detected at a concentration of 0.15 micrograms per liter (µg/L) using a method detection limit of 0.05 µg/L (MCL is 0.05 µg/L). The well was tested twice again, on July 29, 2003 and on August 6, 2003. EDB was not-detected above the detection limits. The source of EDB has not been verified, the City staff indicated that it could have been coming from an upgradient auto repair facility, but it was never documented. The City did not require the use of the well, so changed it to inactive until 2010. In February 2010, the City then purged and sampled the groundwater from the well. EDB was not detected above the detection limit of 0.05 µg/L. The well was brought into "pending active" status by the CDPH in April 2010, with a requirement for sampling when in operation. The daily data collected since then indicates no detectable EDB in the pumped groundwater above the detection limit of 0.02 µg/L, so the City now continues to use the well, sampling it monthly when in use.

Groundwater collected from the City's Well #7 has higher levels of boron, manganese, aluminum, iron and Total Dissolved Solids (TDS) all at or above the MCLs. Due to the water quality issues, the well was not put into active status, but remains an important monitoring well for the groundwater deeper than 470 feet.

The quality of the groundwater from the other four active City wells is very good and none of these active wells require treatment. The quality of groundwater supply sources over the next 25 years is expected to be adequate. Groundwater will continue to be treated to drinking water standards in the one well, and no impacts to water supplies due to water quality deficiencies are foreseen to occur in the next 25 years.

In 2006, the USGS completed an evaluation of the geology, water levels, water quality, surface water and groundwater interactions, and recharge areas of the Sonoma Valley Subbasin. In addition, a groundwater model was developed for the Sonoma Valley to assist in identifying problem areas within the basin (USGS, 2006a). In general, the Sonoma Valley Groundwater Subbasin appears to be limited in the amount of water it can store, given the predominately fine-grained materials and volcanics that comprise the basin. In Sonoma Valley, the USGS estimated that pumping in the basin has generally increased from approximately 6,200 acre-feet per year since the basin was last studied in 1974, to 8,400 acre-feet per year in 2000 (approximate 25 percent increase in pumping). The USGS study did not indicate whether overdraft was occurring (the condition where the long-term discharge including pumping exceeds recharge). The USGS noted that the relatively small decrease in storage between 1974 and 2000 explained the localized nature of water level declines. The USGS noted a significant increase in pumping since 2000 due to an increase in new wells likely associated with private vineyard production. Although the USGS concluded that

groundwater quality is generally acceptable within the basin, there were some localized problems identified in the basin. In particular the USGS identified the possible migration of high-saline water along the southern end of the basin and localized areas of thermal waters (USGS, 2006a). The SCWA, in cooperation with the SVGMP program is scheduled to be installing two nested monitoring well sets in the southern portion of the Sonoma Valley in 2011 to monitor the depth and levels of the saline waters.

Water quality issues are not anticipated to have a significant impact on water supply reliability. If applicable in the future, chemical contamination and the lowering of MCLs for naturally occurring constituents can be mitigated by constructing new treatment facilities.

4.3.3.3 Adjudicated Basins

Neither the Sonoma Valley Subbasin nor the Napa-Sonoma Valley Groundwater Basin is adjudicated.

4.3.4 Sufficiency of Groundwater

DWR did not identify “critical conditions of overdraft” in the Sonoma Valley groundwater basin in Bulletin 118 – 80 (DWR, 1980), and has not evaluated overdraft conditions since that date (DWR, 2003).

The 2006 USGS report estimated through the groundwater flow modeling analysis, that between 1975 and 2000, 17,300 acre-feet of groundwater was lost from overall groundwater storage. As a result, the Sonoma Valley has been experiencing localized declining groundwater levels in some areas and potential groundwater quality problems from seawater intrusion and geothermal upwelling. Several groundwater studies have been prepared in the basin since the study and are summarized below as they apply to the City, but the City has not changed their groundwater production substantially in the last years of UWMP records.

In the SVGMP Annual Reports, semi-annual groundwater contour maps are shown and in the 2008 and 2009 Annual Reports, both indicate a depression area in the southeastern portion of the City and south of the City.

The City’s groundwater supply is subject to reductions during dry years. The City pumped 43.1 acre-feet in 2010 and during the drought year of 2009, they pumped 227 acre-feet. To ensure consistent groundwater availability, use of the City wells would be generally be used during periods of peak demand and when deliveries from the SCWA are not available. This method would allow groundwater to recover between seasons of use.

The City is participating in the regional Groundwater Banking Feasibility Study that is evaluating the feasibility of adding Russian River water via well injection into the aquifer beneath the Sonoma Valley to increase available groundwater supplies and in turn alleviate groundwater depressions. It is not known if this is a viable alternative yet because this study is not due out until late 2011.

4.3.4.1 Groundwater Pumped (2005-2010)

The City pumped groundwater from several wells and the amount of groundwater pumped in the last six years is shown in Table 4.2 (DWR Table 18). The City pumped an average of 89 acre-feet per year over the 10-year time period between 2001 and 2010, but during the drought of 2008, the City began increasing groundwater use due to less available purchased water. In 2008 the City used 105 acre-feet, and in 2009 the City used 227 acre-feet, but only pumped during the peak months of the year to allow groundwater to

recover during the off-peak months. In 2010, the City only pumped the amount of groundwater it needed during the peak months, equaling 43 acre-feet per year. The amount of groundwater pumped varies considerably with the rainfall and how much water is purchased from the SCWA.

In general, the City uses groundwater to augment purchased water from the SCWA when necessary for peak flow demands. The City projected an average use of 324 acre-feet per year for 2010 in the City's previous UWMP, but only used an average of 103 acre-feet per year over the last five years and never used more than 227 acre-feet per year.

Table 4.2 (DWR Table 18)
Groundwater – Volume Pumped – AFY

Sonoma Valley Basin	Metered or Unmetered	2005	2006	2007	2008	2009	2010
Total groundwater pumped	Metered	75	65	73	105	227	43
Groundwater as a percent of total water supply		3%	3%	3%	4%	11%	2%

Note: Data was obtained from the City of Sonoma's Annual DWR Reports

4.3.4.2 Limitations to Groundwater Pumping and Overdraft Conditions

There are no legal constraints on the City's use of its groundwater supply. The City has no groundwater pumping restrictions, or water quality issues that limit groundwater production.

That said, the groundwater depression area indicated in the southwest part and southwest of the City is not related to pumping that the City does. Pumping from the City occurs in the northern portion of the City and does not show depressed groundwater levels. An evaluation of what is causing the groundwater depression in the southern portion of the City has not been completed.

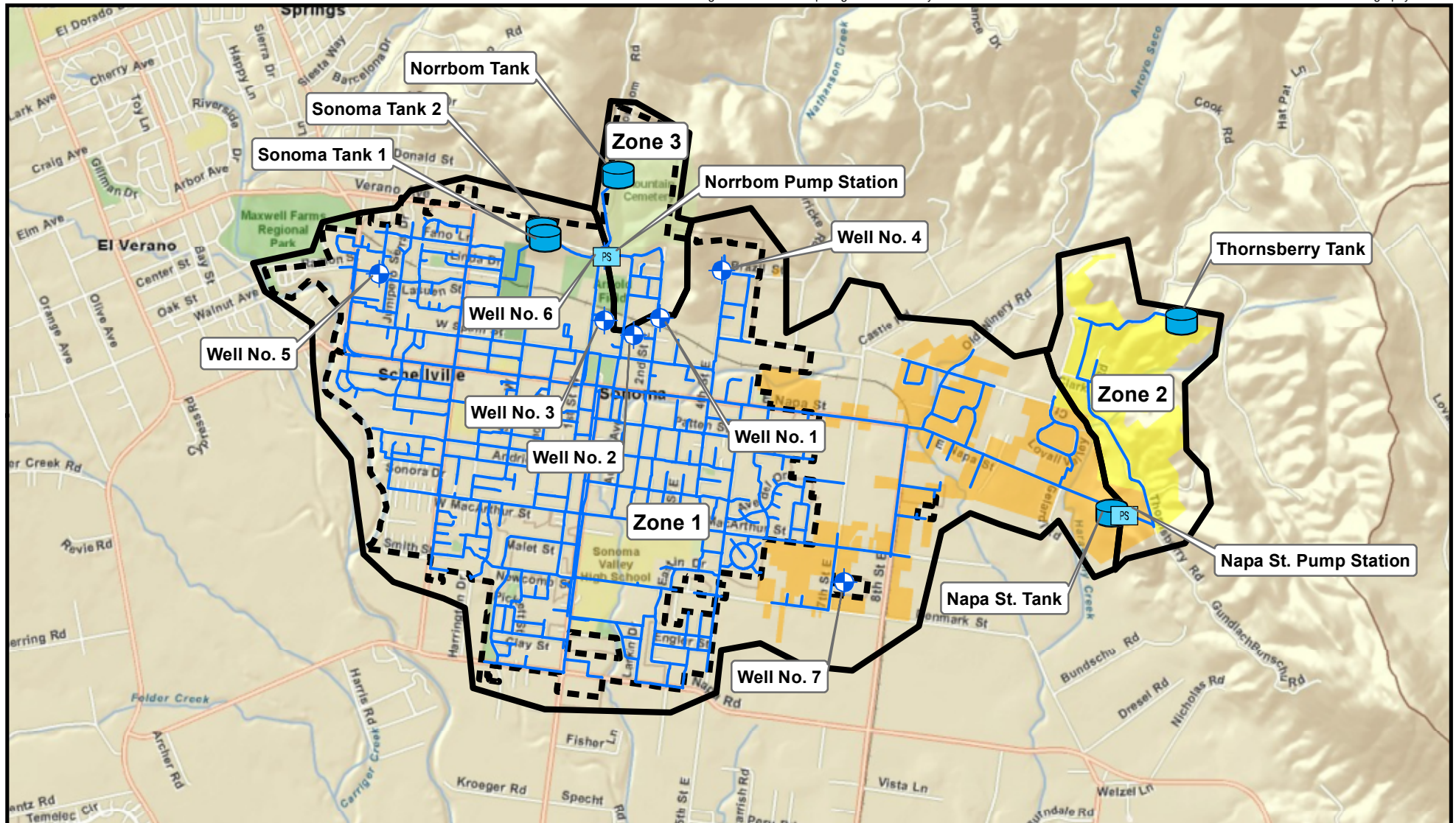
In 2009 and 2010, Winzler & Kelly completed pumping tests and analyses of existing City Wells #1, #3, #4, and #6 (see Figure 4.3) to assess the sustainable yield of the wells and determine how the aquifer would respond to additional pumping demands by the City. This information assisted the City in understanding groundwater responses during peak demands to better manage the groundwater and allow for recovery of the aquifers in the City pumping areas. It was determined that when pumping one City well, the other wells were influenced and recommendations for alternating well use were made.

The City now employs the following well management practices in order to avoid interference, improve operations efficiency and maintain sustainable production:

- Rotate the use of City wells
- Well #6 is not run for more than several weeks at a time to keep the well from drawing down into the screens which can cause biofouling
- Wells #1, #2, and #3 are not operated at the same time in order to avoid interference,
- Wells should not be pumped more than 286 acre-feet per year for sustainable use.

4.3.5 Projected Groundwater Pumping

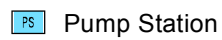
Their current policy is to use groundwater only as necessary to meet their peak demands so groundwater levels can recover during the off-peak periods. The City estimates pumpage in the future to be as indicated in Table 4.3 (DWR Table 19).



Legend



Tank



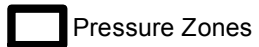
Pump Station



Well



Mains



Pressure Zones



City Limit Service Area

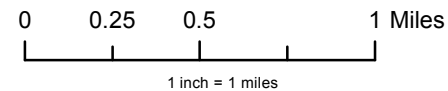


Outside Service Area

Thornsberry Assessment
District Service Area

Note:

The City of Sonoma serves water to all the Service Areas listed above.



Sources: USDA:GIS: Sonoma County
Water Utility, City of Sonoma GIS

Figure 4.3
Water System Map

City of Sonoma
2010 Urban Water Management Plan



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Table 4.3 (DWR Table 19)
Groundwater – Volume Projected to be Pumped (AFY)

Sonoma Valley Basin	2015	2020	2025	2030	2035
Total groundwater projected to be pumped	250	250	195	143	50
Percent of total water supply	10%	9%	7%	5%	2%

Notes:

Percentage of total water supply was determined by dividing projected groundwater pumpage by the total projected water demand

Projections of total water supply were obtained from email dated April 8 2010 3:48pm, called "Water Contractors 2035 Projections.xls"

Over time, the use of groundwater is estimated to go down to 50 acre-feet per year by 2035. These pumpage amounts are below the sustainable yield of 286 acre-feet per year indicated above; therefore, there is no reason to expect any problems with pumping this amount of groundwater.

4.3.6 Planned Groundwater Supply Projects and Programs

By 2015, two new wells are planned and are projected to supply an additional 60-100 acre-feet per year each. By 2020, one additional well is planned to be drilled. Currently, the City is in preliminary studies to determine the exact location of the first of these new wells. This next well is planned to be located in the north to northwest portion of the City, outside of the depression area, and is expected to be installed in 2012. This well will be considered as redundant or a replacement well for existing wells that are aging. The City is currently completing preliminary work toward a new well source that can be used as redundancy or replacement well for their better producing well, Wells #1 or #3, which are very old.

Understanding some of the depression issues indicated in the SVGWP, in 2010, the SCWA and several agencies including the City entered into an agreement to study the feasibility of groundwater banking in the Sonoma Valley. The agency group hired consultants who are currently reviewing the hydrogeology of the Sonoma Valley to assess potential areas, such as the groundwater depression areas, that could possibly bank groundwater. The feasibility study outcome is to determine locations and have an understanding of the specific ramifications, such as water quality changes, of such a program and to allow the various participating local agencies enough information to proceed with appropriate workplans to further investigate specific locations to bank groundwater. The study is expected to be completed after this UWMP is completed, but does include the investigation of the groundwater depression within the City area. No specific numbers can be put to this project until further analysis is completed.

Also being completed is a County-wide storm water management-groundwater recharge study by the SCWA to assess the feasibility of using storm water to recharge the groundwater in some areas around the Sonoma Valley. This study is in the early stages and will be completed later in 2011 or 2012 and no specific offset can be calculated for this study.

The SCWA also received Bureau of Reclamation stimulus grants to construct a 100 acre-foot recycled water storage pond near the SVCSD regional wastewater treatment plant (WWTP), south of the City of Sonoma. This project includes the pond and conveyance pipeline that will expand the use of recycled water, strategically in the areas where saline water may be present, as well as potentially help with offset of some use of agricultural groundwater. This pond is expected to begin construction in 2011 and beneficial effects to the groundwater may not be known for several years, but adds to the progress towards achieving a sustainable groundwater supply for the basin.

4.4 TRANSFER OPPORTUNITIES

Water transfers between the SCWA's water contractors are authorized under the Restructured Agreement. Such transfers and exchanges between Agency water contractors have been necessary in the past and may continue to be necessary in the future to improve water reliability. The City does not anticipate any transfers or exchanges.

Table 4.4 (DWR Table 20)
Transfer and Exchange Opportunities – AFY

Transfer Agency	Transfer or Exchange	Short Term or Long Term	Proposed Volume
Name of Agency	--	--	0
Total			0

4.5 DESALINATED WATER OPPORTUNITIES

There are currently no plans for desalination, and no desalination for future water supply is anticipated. However, the City is within approximately 15 miles of the San Pablo Bay; therefore, desalination of bay water (as is currently being pilot tested by Marin Municipal Water City) is a possibility. Brackish or impaired groundwater is also present between Petaluma and San Pablo Bay; therefore, desalination of groundwater is also a possibility. Nevertheless, no desalinated water supplies are projected for this UWMP.

4.6 RECYCLED WATER OPPORTUNITIES

This section describes the wastewater characteristics, flows, and treatment facilities that are proximate to the City's service area. The UWMP Act requires the following items to be addressed for recycled water:

- Information on the recycled water supply including coordination with dischargers;
- Description of the wastewater collection and treatment systems in the service area;
- Quantity of treated wastewater that meets recycled water standards;
- Recycled water currently being used in the service area;
- Potential for recycled water use in the service area;
- Actions to encourage recycled water use; and
- Plan for optimizing recycled water use.

The City meets the water supply needs of their customers by importing water into the City's service area from the SCWA, pumping local groundwater within Sonoma Valley, and implementing water conservation programs. However, in order to further supplement and enhance the City's water supply sources, the City has been in discussion with the Sonoma Valley County Sanitation District (SVCS D) to acquire recycled water in the future.

As discussed in more detail below, the City's service area is relatively distant from the SVCS D WWTP and it will require extensive pipeline construction to serve irrigation demands in the City's service area. The City recognizes that recycled water can help increase the reliability of their water supply by offsetting groundwater pumping, particularly in the southern end of Sonoma Valley. The City recognizes the benefit of expanded recycled water use to offset agricultural pumping in the southern portion of the Sonoma Valley in terms of increasing the reliability of their groundwater supplies.

Accordingly, the City will endeavor to collaborate with the SVCSD to increase recycled water use for agricultural and other purposes that results in reduced groundwater pumping. As discussed in more detail below, extension of recycled water pipelines to the City's service area is anticipated to be a later phase of a regional project and it will take time and considerable outside funding to bring a recycled water system to the City's service area.

4.6.1 Coordination

The City has been in discussion with various agencies regarding the potential use of recycled water in the City's service area. Those agencies include the SCWA, the SVCSD, and the Valley of the Moon Water District. The SVCSD participates indirectly in the North Bay Regional Water Recycling Project described below.

4.6.2 Existing Wastewater Collection, Treatment, and Reuse Systems

SCVSD provides wastewater collection, treatment, disposal, and water recycling services in the City's service area, and other areas in the Sonoma Valley, including within the boundaries of the City of Sonoma (see Figure 4.4). The SVCSD reclamation facility provides a tertiary treatment for a permitted average dry weather flow capacity of 3 million gallons per day (mgd) and is capable of treating up to 16 mgd. From 2000 to 2010, the annual volume of wastewater treated by the WWTP ranged from approximately 3,500 acre-feet in 2007 to 4,800 acre-feet in 2006.

Treated wastewater is currently either discharged to the San Pablo Bay via Schell and Hudeman's Slough or is reused by dairy and vineyard operations in the southern part of the Sonoma Valley. In 2009, approximately 1,500 acre-feet of treated water was reused, thus offsetting groundwater pumping by this amount. In recent years, the SVCSD has explored the feasibility of expanding recycled water use to offset local groundwater pumping or imported Russian River water in addition to reducing or eliminating discharges to San Pablo Bay.

Table 4.5 (DWR Table 21) summarizes the volume of wastewater collected and treated to Title 22 reuse standards. Table 4.6 (DWR Table 22) summarizes the existing and planned disposal methods.

Table 4.5 (DWR Table 21)
Recycled Water – Wastewater Collection and Treatment (AFY)

Type of Wastewater	2005	2010	2015	2020	2025	2030	2035
Wastewater collected & treated in service area	4,628	4,122	3,500	3,500	3,500	3,500	3,500
Volume that meets recycled water standard	4,628	4,122	3,500	3,500	3,500	3,500	3,500

Source: Data provided by the Sonoma Valley County Sanitation District.

Table 4.6 (DWR Table 22)
Recycled Water – Non-Recycled Wastewater Disposal (AFY)

Method of Disposal	Treatment Level	2010	2015	2020	2025	2030	2035
Slough Discharge	Tertiary	2,772	2,500	1,500	500	0	0
Agricultural Irrigation	Tertiary	1,350	1,350	1,500	2,000	2,000	2,000
Urban/Env. Enhancement	Tertiary	0	0	1,000	1,500	2,000	2,000
Total		4,122	3,850	4,000	4,000	4,000	4,000

Source: Data provided by the Sonoma Valley County Sanitation District.

4.6.3 Potential and Projected Uses of Recycled Water

There is currently no recycled water use in the City's service area. The SVCSD does have recycled water that could be made available for use by the City. However, the "backbone" infrastructure system has not been constructed thereby causing a limitation to the use of available recycled water.

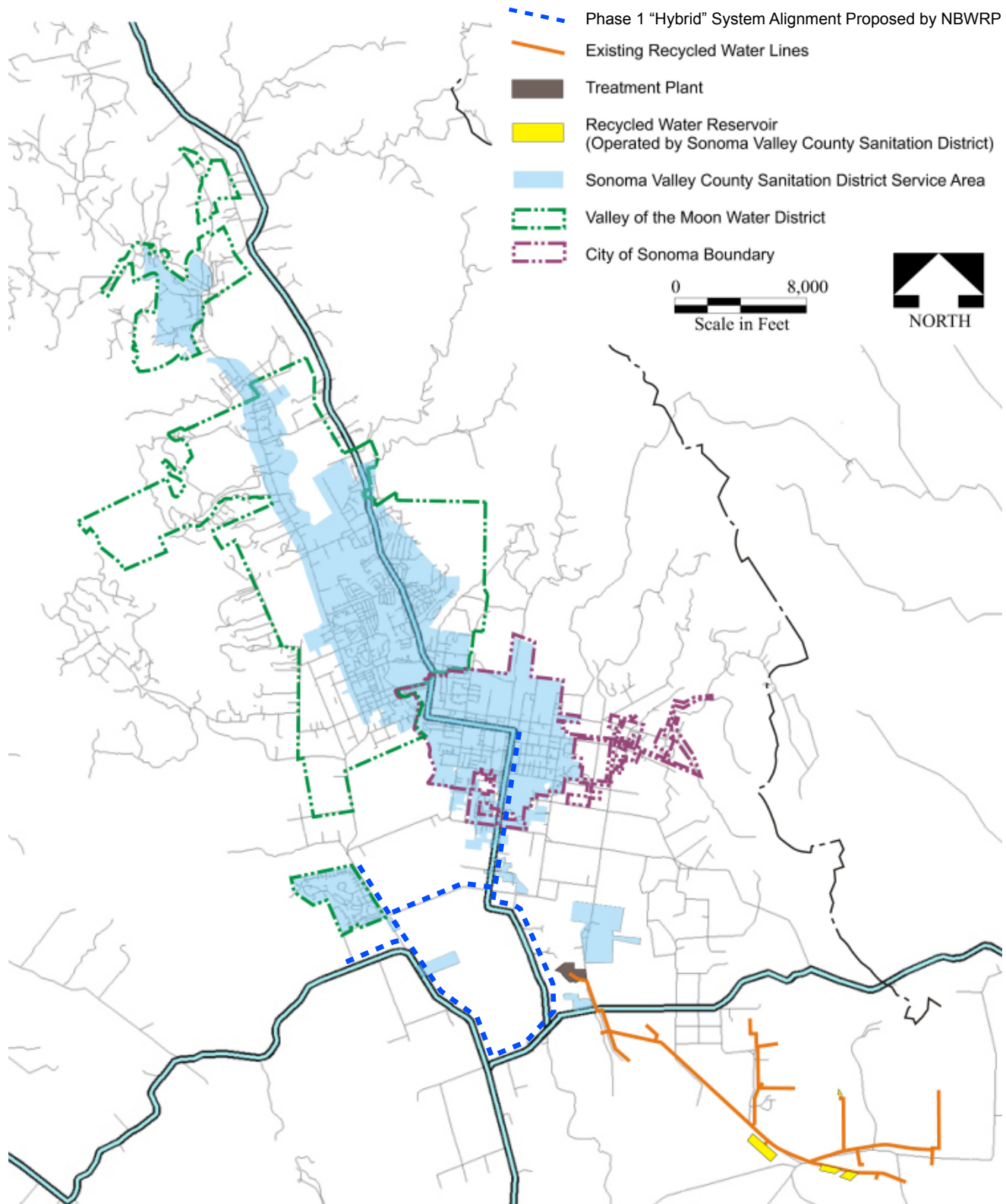
Recognizing the growing need for an integrated and regional approach to water management, the SCWA partnered with SVCSD, Napa Sanitation City (Napa SD), Novato Sanitary City (Novato SD), and Las Gallinas Valley Sanitary City (LGVSD) to plan for expanded use of recycled water. The North Bay Water Recycling Program (NBWRP) builds on existing project planning and leverages inter-agency cooperation to address common needs related to reliable water supplies and enhanced environmental restoration and secure project funding. To date, NBWRP has developed technical planning documents, certified a program Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and secured \$7.3 million in grant funding towards project planning, design, and construction.

Each of the NBWRP member agencies had conducted previous planning studies and as part of developing the program EIR/EIS, NBWRP reviewed these documents and available land use data to develop regional recycled water service areas. The Sonoma Valley area includes areas studied in the 2006 Sonoma Valley Recycled Water Project EIR and has been expanded to include areas south and north of the original study area. The potential project areas are illustrated in Figure 4.4 and described below:

- **Sonoma Valley Recycled Water Project Area** – SVCSD is developing the Sonoma Valley Recycled Water Project (SVRWP), which identified about 1,015 acres of dairy/pasture land, 234 acres of urban landscaping, 2 acres of irrigated farm land, and 6,249 acres of vineyards, for a total of about 7,500 acres which could be converted to recycled water use.
- **Southern Sonoma Valley** – The area south of the City of Sonoma is dedicated predominantly to vineyard uses and is close to the SVCSD WWTP. The Southern Sonoma Valley reuse area includes an additional 55 acres of dairy/pasture land, 48 acres of urban landscaping, and 4,005 acres of vineyards, for a total area of 4,108 acres. As illustrated in Figure 4.4 it generally extends south of the SVRWP area and provides opportunity for early, phased implementation.
- **Central Sonoma Valley** – The Central Sonoma Valley reuse area is located north of the proposed SVRWP, and includes additional irrigated areas in the Sonoma Valley. It includes an additional 51 acres of urban landscaping, 258 acres of irrigated farm land, and 2,929 acres of vineyards, for a total area of 3,237 acres. Because of its distance from SVCSD's facilities, extension of recycled water into this area would occur late in program implementation.

NBWRP's EIR/EIS considered a No Project Alternative, a No Action Alternative, which reflects the individual agency projects that are likely to move forward even without support from the NBWRP, and three Action Alternatives which would expand regional recycled water potential. The EIR/EIS also developed a Phase 1 Implementation Plan which includes a set of projects, common to all of the NBWRP alternatives, and which have attracted design-level funding commitments from the US Bureau of Reclamation.

Each project phase is described in the next paragraph.



Source: SCWA, Draft Sonoma Valley Recycled Water Feasibility Study, January 2005

Figure 4.4
Sonoma Valley County Sanitation District Facilities Map

City of Sonoma
2010 Urban Water Management Plan

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- **No Action Alternative and Phase 1 Implementation Plan:** SVCSD completed an EIR in 2006 for the SVRWP, located in southern Sonoma Valley, including the City of Sonoma and unincorporated portions of Sonoma County. The SVRWP, as described in the EIR, involved extending the recycled water pipelines from the SVCSD WWTP to deliver recycled water to the increased customer base described above. Although the SVRWP EIR was certified, SVCSD has elected to implement only one of the proposed pipeline alignments. The Phase 1 Implementation Plan includes specific elements of the SVRWP, including construction of 5.2 miles of pipeline, additional storage at the SVCSD WWTP, and construction of additional pumping capacity for distribution.

The SVCSD and SCWA have developed proposed hybrid pipeline alignments that could serve to offset groundwater use (making the groundwater available for urban use) or directly offset urban uses in the City of Sonoma. The proposed hybrid facilities that could be constructed during the Phase 1 Implementation Plan are shown in Figure 4.4. Construction of this system could occur within the planning period for this UWMP, subject to continued successful contribution from federal grants.

- **Basic System:** The Basic System would be the SVRWP and potentially go into the City's service area. Construction of this system could occur within the planning period for this UWMP, subject to continued successful contribution from federal grants.
- **Partially Connected System:** The Partially Connected System involves development of a subregional recycled water system, taking advantage of increased storage capacity and additional pipelines under Alternative 1 to distribute recycled water more extensively throughout the project area. The partially connected system could again allow for expansion of the SVRWP and extension into the identified South Sonoma Valley Service Area, which is outside of the City's service area. Construction of this system could occur within the planning period for this UWMP, subject to continued successful contribution from state and federal grants.
- **Regional System:** The Regional System connects all four WWTPs in the project area and maximizes water reuse by allowing recycled water from any WWTP to be delivered to any area that needs recycled water. Since the majority of the demand for recycled water lies in the area near Sonoma and Napa, the regional interconnection would allow the other WWTPs to help satisfy the demand in this area. Specifically combined flow from Novato SD and LGVSD would serve the Sears Point Area and would be extended to the Southern Sonoma Valley. Most of this flow is anticipated to originate from Novato SD. The SVCSD would extend service north of the Sonoma Valley Recycled Water Service Area to the Central Sonoma Valley Service Area, which includes portions of the City's service area. Construction of this system could occur within the planning period for this UWMP, subject to continued successful contribution from state and federal grants.

Table 4.7 (DWR Table 23) identifies the various potential future recycled water users by type.

Table 4.7 (DWR Table 23)
Recycled Water – Potential Future Use (AFY)

User Type	Description	Feasibility ^a	2015	2020	2025	2030	2035
Agricultural irrigation	Tertiary Treatment						
Existing		Technical & Economic	1,350	1,350	1,350	1,350	1,350
NBWRP Phase 1		Technical Only	-	848	848	848	848
NBWRP Basic		Technical Only	-	-	-	1,790	1,790
NBWRP Partially Connected		Technical Only	-	-	-	-	-
NBWRP Regional		Technical Only	-	-	-	-	-
Landscape irrigation^b	Tertiary Treatment						
NBWRP Phase 1		Technical Only	-	-	26	26	26
NBWRP Basic		Technical Only	-	-	-	-	55
NBWRP Partially Connected		Technical Only	-	-	-	-	-
NBWRP Regional		Technical Only	-	-	-	-	-
Commercial irrigation^c			-	-	-	-	-
Golf course irrigation			-	-	-	-	-
Wildlife habitat			-	-	-	-	-
Wetlands^d		Technical	-	-	-	-	-
Industrial reuse			-	-	-	-	-
Groundwater recharge			-	-	-	-	-
Seawater barrier			-	-	-	-	-
Geothermal/Energy			-	-	-	-	-
Indirect potable reuse			-	-	-	-	-
Other (type of use)			-	-	-	-	-
Total			1,350	2,198	2,224	4,014	4,069

^a Technical and economic feasibility.

^b Includes parks, schools, cemeteries, churches, residential, or other public facilities.

^c Includes commercial building use such as landscaping, toilets, HVAC, etc. and commercial uses (car washes, laundries, nurseries, etc).

^d Use could be as much as 3000 AFY combined from SCVD and Napa SD treatment plants. Varies by hydrologic year and would reduce discharge.

Note: Demand data brought forward from NBWRA draft EIR/EIS May 2009 Section 2 Project Description.

Estimated use allocated based on total acreage for each use. Urban use can be in City of Sonoma or Valley of the Moon Water District service area. City estimates up to 50 AFY for its service area.

4.6.3.1 Technical and Economic Feasibility of Projected Use

The projects evaluated in the NBWRP EIR/EIS are considered technically feasible. The NBWRP partners have conducted technical studies and adopted a programmatic environmental document, paving the way for project implementation. The NBWRP has also secured a \$7.3 million grant towards project design and construction. The grant will be shared amongst the participating entities and is generally considered sufficient to cover project design activities, but not sufficient to fully fund construction.

For example, the hybrid alternatives currently being developed by the SCWA and SVCSD range in cost from approximately \$2 million to approximately \$5 million. The hybrid alternative that delivers recycled water to the City of Sonoma's service area carries a delivered water cost of over \$9,181 per acre-foot. This cost is different than the recycled water cost described in Section 3.6.1 in that this \$9,181 per acre-foot cost is not a lifecycle cost and is simply the total capital cost divided by the annual estimated recycled water capacity of this project and should not be used as a cost comparison to other sources of water. The City's service area is further from SVCSD's facilities and would be even more expensive to serve.¹ This cost for recycled

¹ Sonoma Valley Recycled Water Project Route Analysis (600 AF option), August 2009.

water highlights the fact that the economic feasibility of these projects is highly dependent on receiving grant funding for implementation.

4.6.4 Comparison of Previously Projected Use and Actual Use

There is a slight difference in the projected use in comparison to the actual use by the SVCSD. This difference is likely a result of the fact that the SVCSD did not implement the SVRWP independently, but rather has worked to build support through a regional coalition and attract grants to its proposed program. These projections are for the entire SVCSD service area. As noted above, recycled water use within the City's service area will likely occur very late in the overall NBWRP effort because of the distance between the SVCSD facilities and the City's service area.

Table 4.8 (DWR Table 24)
Recycled water Use by SVCSD — 2005 UWMP Use Projection
Compared to 2010 Actual (AFY)

User Type	2010 Actual Use	2005 Projection for 2010
Agricultural irrigation	1,350	1,500
Landscape irrigation	0	350
Commercial irrigation	0	0
Golf course irrigation	0	0
Wildlife habitat	0	0
Wetlands	0	0
Industrial reuse	0	0
Groundwater recharge	0	0
Seawater barrier	0	0
Geothermal/Energy	0	0
Indirect potable reuse	0	0
Other (type of use)	0	0
Total	1,350	1,850

4.6.5 Promoting Recycled Water Use

As noted above, the SVCSD and SCWA have recently received funding from the Bureau of Reclamation, U.S. Department of Interior American Recovery and Reinvestment Act of 2009 through the Bureau of Reclamation, Title XVI Program. These funds will be used for the detailed design of the Phase 1 Implementation Plan described above and may also provide some construction funding. In addition, the SVCSD has applied for Proposition 84 funding from DWR through the Bay Area Integrated Regional Water Management Plan. If implemented, this project could provide recycled water to offset groundwater pumping and/or to provide direct potable offsets in the City of Sonoma.

Currently there are no financial or other incentives to the City's customers to encourage use of recycled water as recycled water is still not available within the City's service area. As discussed above, the City is working with the local agencies to deploy recycled water within the Sonoma Valley basin and ultimately to bring it to the City's service area by 2035, at which time appropriate financial incentives would be considered to encourage recycled water use.

Table 4.9 (DWR Table 25)
Methods to Encourage Recycled Water Use (AFY)

Actions	Projected Results					
	2010	2015	2020	2025	2030	2035
Financial Incentives						50
Total	0	0	0	0	0	50

4.7 WHOLESALE WATER SUPPLIERS

The City has one existing wholesale (potable water) source and one proposed wholesale source for recycled water. Table 4.10 (DWR Table 17) shows the existing and future supply from wholesalers.

Table 4.10 (DWR Table 17)
Wholesale Supplies – Existing and Planned Sources of Water (AFY)

Wholesale Sources	Contracted Volume	2015	2020	2025	2030	2035
Sonoma County Water Agency	3,000 (max)	2,355	2,392	2,485	2,576	2,626
SVCSO	0	0	0	0	0	50

The supply amount is based on the City's water demands described in Section 3. The SCWA has informed its water contractors that the Russian River system capacity may be insufficient if the water demands of all of its water contractors exceed the demand projections of its contractors and customers. The SCWA and its water contractors are tracking Russian River system water deliveries and conducting on-going short and long-range capital project planning to identify capital improvement needs, financing and timing, to address system deficiencies, as they become needed.

The City will need to receive an increased water supply under its contract with the SCWA by 2035 to more reliably supply its water needs including meeting single-dry year conditions. The City and other water contractors anticipate the need for additional water in future years. The SCWA will be working on a petition to increase the amount it can withdraw from the Russian River and will need to submit an application for an increase to its diversion permit with the State.

Table 4.11 (DWR Table 16)
Water Supplies – Current and Projected (AFY)

Water Supply Sources							
Water Purchased From:	Wholesaler Supplied Volume (Y/N)	2010	2015	2020	2025	2030	2035
Sonoma County Water Agency		1,908	2,355	2,392	2,485	2,576	2,626
Supplier-produced Recycled Water (SVCSO)		0	0	0	0	0	50
Supplier-produced groundwater		43	250	250	195	143	50
Transfers in		0	0	0	0	0	0
Exchanges In		0	0	0	0	0	0
Recycled Water (see above)		0	0	0	0	0	0
Desalinated Water		0	0	0	0	0	0
Total		1,951	2,605	2,642	2,680	2,719	2,726

4.8 FUTURE WATER PROJECTS

The City's water supply projects and programs include:

- SDC Conjunctive Use Project. This project is a conjunctive use project with the City of Sonoma and the Sonoma Developmental Center (SDC). This project would provide increased reliability by

utilizing surplus capacity on the City's and SDC's water systems and captures and makes beneficial use of off-peak water (wintertime water) available in the Russian River and off-peak capacity available in the SCWA's water supply and transmission system. The project would increase the water supply to the City during critical hot spells, increase flows available in the south end of the Sonoma Aqueduct, and reduce competition among the SCWA's water contractors for summertime deliveries from the Russian River. The project would require an agreement between the Valley of the Moon Water District, SDC, and the City.

- Groundwater Wells. The City is evaluating its well system and will be assessing the yield and condition of its wells. The project will include replacing and/or supplementing its local groundwater supply well system.
- Groundwater Banking. The City is working with the SCWA, the City of Sonoma, and other interested participants in a groundwater pilot testing project. Groundwater banking may increase the sustainable yield of existing wells, but at the time of this report, the feasibility of groundwater banking is yet not known.
- Recycled Water. The City is in preliminary discussions with the SCWA, the SVCSD, and the City of Sonoma regarding the delivery and use of recycled water in the City. The City of Sonoma and the surrounding Sonoma County area are served by the SVCSD.
- SCWA Russian River Diversion Rights Increase. The City and the water contractors to the SCWA Russian River water supply will need an increase to the water supply entitlement limit, as provided for under the Restructured Agreement, by year 2035. The SCWA will be working towards this permit application as well as the needed improvements to increase the capacity of the transmission and delivery system to implement this water supply increase. The City intends to request that its entitlement limit of 3,000 acre-feet per year be available by 2035 (an increase from its request of 2,626 acre-feet per year in 2035) in order to provide more reliability to this supply during periods of shortages, not due to droughts, but due to environmental factors.

In addition to the projects listed above, the City is actively encouraging the use of stormwater pollution control measures such as rain gardens and small-scale greywater systems as a means of maintaining groundwater recharge and reducing the use of imported water. At this time, the work is ongoing and therefore not included in Table 4.12 (DWR Table 26)

4.8.1 Amount of Supply Increase

The water supply projects listed in this section are preliminary and supply increase amounts have not been determined. For the proposed upgraded/replacement groundwater well, it is assumed that the well will sustainably produce 60 acre-feet per year under normal water years and can be increased to 100 acre-feet per year during dry water years.

Table 4.12 (DWR Table 26)
Future Water Supply Projects (AFY)

Project Name	Projected Start Date	Projected Completion Date	Potential Project Constraints	Normal Year Supply	Single-Dry Year Supply	Multiple-Dry Year		
						Year 1	Year 2	Year 3
SDC Conjunctive Use	2011	2013	Agreement	--	--	--	--	--
Groundwater Well	2011	2013	Siting	60	100	100	100	100
Groundwater Banking	2011	2020	Feasibility	TBD	TBD	TBD	TBD	TBD
SCWA Russian River Water Rights Diversion Increase ^a	2015	2035	Environ.	374	374	374	374	374
Total			0	434	474	474	474	474

^a Water supply estimates include only the City's share of the project, not the total project for SCWA.

SECTION 5

WATER SUPPLY RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING

This section compares the water demand information developed in Section 3 and the water supply information developed in Section 4. Comparisons are provided under California Department of Water Resources' (DWR's) required range of hydrologic conditions including the normal, single-dry, and multiple-dry year conditions. This section also describes the City of Sonoma's (City's) water shortage contingency and drought planning as required by Water Code Section 10632.

5.1 SUMMARY OF SUPPLY

The City's water supply is predominantly water purchased from the Sonoma County Water Agency (SCWA). The City also has local groundwater well supply and in the future proposes to use recycled water from the Sonoma Valley County Sanitation District (SVCSD). The factors affecting recycled water are described in detail in Section 4.6 and summarized in Table 5.1 (DWR Table 29). In a normal water year, approximately 95 percent of the City's water supply is water purchased from the SCWA.

Table 5.1 (DWR Table 29)
Factors Resulting in Inconsistency of Supply

Water Supply Sources	Sonoma County Water Agency	Groundwater Wells	Recycled Water
Specific Sources Name (if any)	Russian River surface water	Sonoma Valley Basin groundwater	Sonoma Valley County Sanitation District
Limitation Quantification	3,000 acre-feet per year 6.2 million gallons per day	286 acre-feet per year	50 acre-feet per year
Legal	Controlled by 4 SWRCB permits and subject to permit constraints including reductions in water supply during water shortage years; District will need to increase entitlement limit by 2035 to meet demands	None	None
Environmental	Biological Opinion calls for reduction of impacts to salmonids and results in minimum flow requirements during normal and dry years	None	None
Water Quality	None	None; some wells have pretreatment for iron and manganese	None
Climatic	Water supply curtailments during drought conditions	Groundwater is generally used to further supplement Russian River supply during drought conditions	Recycled water is less likely to be impacted by hydrologic and climatic conditions
Additional Information			Feasibility and cost of the infrastructure is the main challenge to implementing this program

5.2 HYDROLOGIC RELIABILITY

The reliability of the District's water sources is summarized in Tables 5.2 (DWR Table 27) and Table 5.3 (DWR Table 28) and supported by the data and analysis presented in Chapter 4. The District's water year

data and reliability analysis relies upon the information and river system modeling from the SCWA (refer to SCWA 2010 UWMP).

Table 5.2 (DWR Table 27)

Basis of Water Year Data

Water Year Type	Base Year(s)
Average Water Year	1962
Single-Dry Water Year	1977
Multiple-Dry Water Years	1988-1991

Source: Sonoma County Water Agency

Table 5.3 (DWR Table 28)

Supply Reliability – Historic Conditions (AFY) ^a

Water Supply Sources	Avg./Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years			
			Year 1	Year 2	Year 3	Year 4
Sonoma County Water Agency ^b	2,626	2,206	2,626	2,626	2,626	2,626
Local Groundwater ^c	250	250	250	250	250	250
Total	2,876	2,456	2,876	2,876	2,876	2,876
Percent of Avg/Normal Year	100%	85%	100%	100%	100%	100%

^a 2015 is used as basis

^b Reliability for SCWA supply is 84% supply for single-dry year; 100% for all other water years

^c Reliability for groundwater and recycled water is 100% for all water years

5.3 LEGAL & ENVIRONMENTAL CONSTRAINTS

There are factors that cause or have the potential to cause inconsistent supply to meet demands and are due to legal, environmental, water quality, or climatic issues. These factors that affect the reliability of the City's water supply are described in this section.

5.3.1 SCWA Water Supply Agreement

The City is one of eight water contractors under contract with the SCWA, known as the *Restructured Agreement for Water Supply* ("Restructured Agreement"). Under the Restructured Agreement, the SCWA is obligated to deliver water up to 6.3 million gallons per day (mgd) during any month and 3,000 acre-feet of water during a fiscal year. The term of the agreement is through 2037 and can be extended by amendment.

The Restructured Agreement was executed in 2006 and generally provides for the finance, construction, and operation of existing and new diversion facilities, transmission lines, storage tanks, booster pumps, conventional wells, and appurtenant facilities. The Restructured Agreement provides the contractual relationship between the SCWA and its eight water contractors, including the City, and includes specific maximum amounts of water that the SCWA is obligated to supply to its water contractors. Maximum water allocations for each of the SCWA's water contractors set forth within the Restructured Agreement were premised on the SCWA's diversion/rediversion water rights being increased to 101,000 acre-feet per year and on the construction of the new facilities authorized by the Restructured Agreement.

During periods of shortage, Section 3.5 of the Restructured Agreement provides a method for allocating water among the various water contractors and customers of the SCWA water supply. On April 18, 2006, the SCWA's Board of Directors adopted Resolution No. 06-0342, which approved a methodology for

allocating water in the event of a water supply shortage or in the event of a temporary impairment of the capacity of the SCWA's transmission system. It is anticipated that the approved methodology will be modified and updated in 2011-2012 to address changes that have occurred over the last five years. These changes include changes in customer demands, local supply, and recycled water.

5.3.1.1 Water Rights

Four California State Water Resources Control Board (SWRCB) permits currently authorize the SCWA to store up to 122,500 acre-feet per year of water in Lake Mendocino and up to 245,000 acre-feet per year of water in Lake Sonoma, and to divert and redivert 180 cubic feet per second (cfs) of water from the Russian River at the SCWA's Wohler and Mirabel facilities, up to 75,000 acre-feet per year. The City, along with other water contractors has asked the SCWA to apply to the SWRCB to increase SCWA's Russian River diversion limit from 75,000 acre-feet per year to a higher amount that would be needed in future years (2027, based on current demand projections for all water customers).

In September 2008, a final Biological Opinion (BO) was released by the National Marine Fisheries Service (NMFS) and issued to the SCWA, the U.S. Army Corps of Engineers (Corps), the California Department of Fish and Game, and the Mendocino County Russian River Flood Control and Water Conservation Improvement District. The BO is a federal mandate on Russian River operations of the receiving agencies listed above that affect salmonids on state and federal endangered species lists (steelhead, Coho, and Chinook) which affects the SCWA's water supply operations and subsequent delivery to its water customers, including the City.

The BO calls for the elimination or reduction of impacts to salmonids due to water supply and flood control activities in the Russian River watershed through measures deemed to be "reasonable and prudent alternatives," including:

- Extensive monitoring of both habitat and fish in Dry Creek, the estuary and the Russian River;
- Eliminating impediments to fish migration and improving habitat on several streams;
- Restoring up to six miles of habitat in Dry Creek and studying a bypass project;
- Requesting the SWRCB to reduce summertime flows in the Russian River; and
- Creating a freshwater lagoon in the estuary at the mouth of the Russian River during the summer months.

NMFS concluded that lower flows in Dry Creek and Russian River create a better environment for juvenile salmon and steelhead and the BO identified habitat restoration projects in Dry Creek to reduce water velocities in the stream/river. Current minimum summer flows are based on weather conditions, and range from 125 cfs (during a normal year, as measured at Hacienda Bridge in Guerneville) to 85 cfs (as measured during a dry year). Under the terms of the BO, minimum flows would be dropped to 70 cfs with an additional 15 cfs to maintain system flexibility for a total flow of 85 cfs. The BO acknowledged a need for balance and flexibility and noted that SCWA may find alternative minimum flow requirements that meet the goals of restoring functional salmonid-rearing habitat while promoting water conservation and limited adverse effects on other in-stream resources.

5.3.1.2 Entitlements

Water entitlements are set forth in terms of average day peak month demand. The City's entitlement limit is 6.3 mgd and an annual entitlement limit of 3,000 acre-feet. Provided the capacity is available, the Restructured Agreement permits the City to take delivery of water in excess of its entitlement during a given month provided specific conditions as specified in the agreement are met.

5.4 WATER QUALITY CONSTRAINTS

The quality of the City's water deliveries is regulated by the California Department of Public Health Services (CDPH), which requires regular collection and testing of water samples to ensure that the quality meets regulatory standards and does not exceed MCLs. The City, the SCWA, and the Subregional System perform water quality testing, which has consistently yielded results within the acceptable regulatory limits (Dyett & Bhatia, 2000).

The quality of existing surface water, groundwater, and recycled water supply sources over the next 25 years is expected to be adequate. Groundwater and surface water will continue to be treated to drinking water standards, and no surface water, groundwater, or recycled water quality deficiencies are foreseen to occur in the next 25 years. Table 5.4 (DWR Table 30) summarizes the current and projected water supply changes due to water quality.

Table 5.4 (DWR Table 30)
Water Quality – Current and Projected Water Supply Impacts

Water source	Description of Condition	2010	2015	2020	2025	2030	2035
SCWA Water Supply	No impacts	--	--	--	--	--	--
Groundwater Wells	No impacts	--	--	--	--	--	--
Recycled Water	No impacts	--	--	--	--	--	--

5.5 SUPPLY AND DEMAND COMPARISONS

Table 5.5 (DWR Table 31) compares the normal water year supply with the current multiple-dry water year supplies. Subsequent supply and demand tables show comparisons from 2015 to 2035, in five-year increments.

Table 5.5 (DWR Table 31)
Supply Reliability – Current Water Sources (AFY) ^a

Water Supply Sources	Average/Normal Water Year Supply	Multiple-Dry Water Year Supply ^b			
		Year 1	Year 2	Year 3	Year 4
Sonoma County Water Agency ^b	2,555	2,555	2,555	2,555	2,555
Groundwater (City Wells)	250	250	250	250	250
SVCSD (Recycled Water)	0	0	0	0	0
Total Supply	2,805	2,805	2,805	2,805	2,805
Percent of Normal Year		100%	100%	100%	100%

^a Basis year is 2015

^b See Table 4.11

^c 100% reliability for multiple-dry years per SCWA analysis and 100% for all other supplies

Comparisons of supply and demand under normal, single-dry, and multiple-dry years are included in Tables 5.6 through 5.8.

Table 5.6 (DWR Table 32)
Supply and Demand Comparison – Normal Year (AFY)

	2015	2020	2025	2030	2035
Supply (from Table 4.11):					
Sonoma County Water Agency	2,355	2,392	2,485	2,576	2,626
Groundwater (City wells)	250	250	195	143	50
Recycled Water (SVCSD)	0	0	0	0	50
Supply Totals	2,605	2,642	2,680	2,719	2,726
Demand Totals (from Table 3.14)	2,605	2,642	2,680	2,719	2,726
Difference (supply minus demand)	0	0	0	0	0
Difference as % of Supply	0%	0%	0%	0%	0%
Difference as % of Demand	0%	0%	0%	0%	0%

Table 5.7 (DWR Table 33)
Supply and Demand Comparison – Single Dry Year (AFY)

	2015	2020	2025	2030	2035
SCWA Supply Reliability (% of Normal) ^a	79%	80%	82%	79%	81%
Groundwater Reliability (% of Normal)	100%	100%	100%	100%	100%
Recycled Water Reliability (% of Normal)	--	--	--	--	100%
Supply Totals ^b	2,110	2,164	2,233	2,178	2,227
Demand Totals (from Table 3.14)	2,605	2,642	2,680	2,719	2,726
Difference (supply minus demand)	-495	-478	-447	-541	-499
Difference as % of Supply	-23%	-22%	-20%	-25%	-22%
Difference as % of Demand	-19%	-18%	-17%	-20%	-18%

^a Single-dry year reliability based on SCWA reliability analysis (see SCWA 2010 UWMP)

^b Supply Total equals reliability times source supply volume from Table 5.6

Table 5.8 (DWR Table 34)
Projected Supply & Demand Comparison during Multiple Dry Year Events (AFY)

		2015	2020	2025	2030	2035
Multiple Dry Year - First Year Supply	Supply Totals	2,605	2,642	2,680	2,719	2,726
	Demand Totals	2,605	2,642	2,680	2,719	2,726
	Difference (supply minus demand)	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%
Multiple Dry Year - Second Year Supply	Supply Totals	2,605	2,642	2,680	2,719	2,726
	Demand Totals	2,605	2,642	2,680	2,719	2,726
	Difference (supply minus demand)	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%
Multiple Dry Year - Third Year Supply	Supply Totals	2,605	2,642	2,680	2,719	2,726
	Demand Totals	2,605	2,642	2,680	2,719	2,726
	Difference (supply minus demand)	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%
Multiple Dry Year - Fourth Year Supply	Supply Totals	2,605	2,642	2,680	2,719	2,726
	Demand Totals	2,605	2,642	2,680	2,719	2,726
	Difference (supply minus demand)	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%

5.6 SUMMARY OF SUPPLY AND DEMAND ANALYSIS

The City's combined projected water supplies are sufficient to meet projected demands during normal and multiple-year conditions. During a severe drought condition, under the single-dry year condition, the City will not have adequate supplies and will need to impose mandatory water conservation. The City's water customers have been successful in reducing its water demands during water shortages, such as had occurred in 2009 when the City's water deliveries were reduced by 18 percent of normal. Also, the City can produce more groundwater on a short-term basis during peak summer months to supplement the SCWA supply.

The City's projected water supply portfolio is highly stable, because it relies largely on current contracted and permitted water supply from the SCWA, and also has local groundwater wells that can further supplement the SCWA supply, particularly during drought conditions.

By 2035, the SCWA will need to "perfect" its Russian River water supply, because the combined water demands from the water contractors and water customers of the SCWA will exceed the current Russian River diversion limit. The City will be requesting an increase to its entitlement under the Restructured Agreement from its 2035 SCWA water supply request for 2,626 acre-feet per year to its current entitlement limit of 3,000 acre-feet per year. This increased entitlement will help in addressing water supply shortages that occur from time to time due to legal and environmental factors associated with the SCWA water supply.

5.7 WATER SHORTAGE CONTINGENCY AND DROUGHT PLANNING

This section provides information required by Water Code Section 10632. The City adopted water waste prohibitions and that is included in Appendix D. The City has also adopted a Water Shortage Emergency Plan within Section 13.66 of its Municipal Code, which is included in Appendix E of this UWMP.

5.7.1 Actions in Response to Water Supply Shortages (Water Code 10632(a))

Water Code Section 10632(a) requires a description of the actions to be undertaken by the urban water supplier in response to water supply shortages of up to 50 percent. This section also requires the water supplier to outline the specific water supply conditions that are applicable at each stage of action.

The Russian River water supply is generally very reliable, but as described earlier in this section, does have some factors such as legal, environmental, and climatic constraints. These are generally handled by the City's ability to supplement the SCWA supply with its own local groundwater supply and the City's ability to implement mandatory water conservation.

Although the City has a relatively reliable and flexible water supply portfolio that allows it to manage a range of supply cutbacks, the City Council also has the authority to declare a water shortage emergency. This authority is contained in Section 13.10 of the Municipal Code. Emergencies are declared in four stages with specific reduction methods used for each stage. Table 5.9 (DWR Table 35) summarizes the consumption reduction methods that the City has the authority to use.

Table 5.9 (DWR Table 35)
Water Shortage Contingency – Rationing Stages to Address Water Supply Shortages

Stage No.	Water Supply Conditions	% Shortage
1 Voluntary	Irrigation morning and evening only	15%
	Inspection/repair/adjustment of irrigation systems	
	Reduction in irrigation run times for weather	
	Reduction of irrigation run time if runoff occurs	
	Utilization of City information, incentives & rebates	
	Increased information on City's water waste prohibitions	
2 Mandatory	Prohibition against filling swimming pools and commercial ornamental fountains	16% to 25%
	Restrictions on noncommercial vehicle washing	
	Prohibition against use of water from fire hydrants (except for fighting fires)	
	Prohibition against use of water for construction dust control	
	Daily restrictions on residential irrigation	
	Restrictions on other nonessential uses as determined by the City Council	
3 Mandatory	Limitation on turn irrigation to 75% of 2006 use	26% to 40%
	Prohibition against noncommercial vehicle washing	
	Prohibition against all ornamental fountains	
	Prohibition on other nonessential uses as determined by the City Council	
4 Mandatory	Development of water rationing plan	> 40%
	Water allocations based on water available, customer use and economic impacts	
	Implementation of conservation rates, drought surcharges and excess use penalties and fees	
	Systematic plan for temporary service interruptions	
	Water billing plan that results in monitoring use	
	Public outreach plan for systematic interruptions	
	No new water connections	
	No new agreements to provide service	

5.7.2 Minimum Water Supply During the Next Four Years (Water Code 10632(b))

The minimum water supply available during the next four years during a multiple-dry year drought is shown in Table 5.5 (DWR Table 31). Because the City has based its planning on the SCWA's current water rights and because these current water rights are more restrictive than any hydrologic condition, including the multiple-dry year condition, this minimum water supply analysis is identical to the normal water year analysis.

5.7.3 Catastrophic Supply Interruption Plan (Water Code 10632(c))

In accordance with the Emergency Services Act, the City has developed an Emergency Operation Plan (EOP). This EOP guides response to unpredicted catastrophic events that might impact water delivery including regional power outages, earthquakes, or other disasters. The EOP outlines standard operating procedures for all levels of emergency, from minor accidents to major disasters. The EOP has been coordinated with the SCWA and neighboring water purveyors. Table 5.10 provides a summary of the actions included in the EOP for specific catastrophic effects.

Table 5.10
Preparation Actions for Catastrophes

Possible Catastrophe	Summary of Actions
Earthquake	Shut-off isolation valves and use of spare piping for ruptured mains
	Storage supplies for service interruption
	Portable and emergency generators available for City facilities
	Procedures for assessing water quality, notifying public and disinfecting system
Flooding	Portable and emergency generators available for City facilities
	Storage supplies for service interruption
	Procedures for assessing water quality, notifying public and disinfecting system
Toxic Spills (interrupts Agency Supply)	Use of local groundwater
	Procedures for assessing water quality, notifying public and disinfecting system
Fire	Storage supplies for fire flows
	Mutual aid plans and responders identified
	Portable and emergency generators available for City facilities
Power outage or grid failure	Portable and emergency generators available for City facilities
Severe Winter Storms	Portable and emergency generators available for City facilities
Hot Weather	Portable and emergency generators available for City facilities

5.7.4 Prohibitions, Penalties, and Consumption Reduction (Water Code 10632(d)-(f))

Section 13.10.060 of the Municipal Code specifies prohibited water uses. These are outlined in Table 5.11 (DWR Table 36), below. The Municipal Code also includes temporary prohibitions that are used in various stages of the water shortage emergencies. These are outlined in Table 5.12 (DWR Table 37).

Table 5.11 (DWR Table 36)
Water Shortage Contingency – Mandatory Prohibitions

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Washing of sidewalks, walkways, driveways, parking lots and other hard-surfaced areas by direct hosing, except in specific circumstances	Permanent Prohibition
The escape of water through breaks or leaks within the customer's plumbing or private distribution system	Permanent Prohibition
Irrigation in a manner or to an extent which allows excessive runoff	Permanent Prohibition
Washing cars, boats, trailers or other vehicles with a hose not equipped with a shutoff nozzle	Permanent Prohibition
Water for new non-recirculating conveyor car wash systems	Permanent Prohibition

Table 5.12 (DWR Table 37)
Water Shortage Contingency – Consumption Reduction Methods

Consumption Reduction Method	Stage When Method Takes Effect	Projected Reduction (%)
Irrigation morning and evening only	1	15%
Inspection/repair/adjustment of irrigation systems		
Reduction in irrigation run times for weather		
Reduction of irrigation run time if runoff occurs		
Utilization of City information, incentives & rebates		
Increased information on City's water waste prohibitions		
Prohibition against filling swimming pools and commercial ornamental fountains	2	16% to 25%
Restrictions on noncommercial vehicle washing		
Prohibition against use of water from fire hydrants (except for fighting fires)		
Prohibition against use of water for construction dust control		
Daily restrictions on residential irrigation		
Restrictions on other nonessential uses as determined by the City Council		
Limitation on turn irrigation to 75% of 2006 use	3	26% to 40%
Prohibition against noncommercial vehicle washing		
Prohibition against all ornamental fountains		
Prohibition on other nonessential uses as determined by the City Council		
Development of water rationing plan	4	> 40%
Water allocations based on water available, customer use and economic impacts		
Implementation of conservation rates, drought surcharges and excess use penalties and fees		
Systematic plan for temporary service interruptions		
Water billing plan that results in monitoring use		
Public outreach plan for systematic interruptions		
No new water connections		
No new agreements to provide service		

Section 13.10-090 through 13.10.130 of the Municipal Code outlines the City's enforcement process, which is presented in Table 5.13 (DWR Table 38).

Table 5.13 (DWR Table 38)
Water Shortage Contingency – Penalties and Charges

Penalty or Charge	Stage When Penalty Takes Effect
Written Notice with time frame for correction	Any Stage
Personal contact with follow up written notice	Any Stage
Installation of a flow restricting device	Any Stage
Imposition of water waste fees	Any Stage
Termination of service	Any Stage
Site water audit	Stage 2 or 3

5.7.5 Effect on Revenues and Expenditures (Water Code 10632 (g))

Based on the analysis presented above, the most challenging situation for the City to manage would be a 50 percent reduction in all supplies.

This reduced revenue would be balanced by some reduction in costs, since the City would be purchasing less water from the SCWA. In addition, the City would have the option of deferring planned capital expenditures and utilizing its utility system reserves.

In order to understand the potential impacts of supply reduction on revenues and expenditures, the City has analyzed the effects of 20, 30, and 50 percent reductions in water delivered. For the purpose of this analysis, Fiscal Year (FY) 2010-11 budget data was used. The City's current water rate structure includes a monthly service charge and a commodity charge. Commodity charges are tiered for residential accounts. The City's rate structure is presented in Table 5.14 below.

Table 5.14
Water Shortage Contingency – Rate Schedule

Bi-monthly Service Charge		Commodity Rate Charge per 1000 gallons
Residential		
\$24.31		\$2.85/\$4.84/\$6.05
Commercial and Multifamily		
1" meter	\$29.19	Multifamily: \$4.14
1 ½" meter	\$38.94	CII: \$4.04
2" meter	\$48.67	Municipal: \$3.44
3" meter	\$72.99	Irrigation \$5.33
4" meter	\$121.65	
5" meter	\$89.62	
6" meter	\$194.82	
Note: City water rates per Resolution No. 46-2007		

Reductions in water use will affect the revenue that the City receives from its commodity charges, because less water will be sold. The anticipated revenue from commodity charges can be calculated by subtracting the revenue generated from monthly service charges from the total budgeted revenue. Table 5.15 illustrates this calculation.

Table 5.15
Water Shortage Contingency – Effect of Reduced Water Sales on Total Revenue

	No. of Accounts	Bi- monthly Service Charge^a	Revenue from Bi- monthly Service Charge	Total Budgeted Revenue	Budgeted Revenue Subject to Reduction
	(a)	(b)	(c)	(d)	(e)
			=		=
			(a)*(b)*6 mos/yr		(d)-(c)
Single Family Residential	3488	\$24.31	\$508,760		
Commercial/MFR	870	\$121.65	\$635,013		
Total			\$1,143,773	\$3,893,415	\$2,749,642

^a Assumes average Commercial/MFR meter at the 4" rate

Should the City experience a drop in revenues as a result of a water shortage emergency, it would incur lower costs (because it would be purchasing less water from the Agency); it would defer capital projects as necessary and use available reserves to cover operational expenses. The effect of potential revenue reductions on overall expenditures and reserve balances is illustrated in the following Table 5.16.

Table 5.16
Water Shortage Contingency – Effect of Reduced Supply on Revenues & Expenditures

	Normal	20% Reduction in Supply^a	30% Reduction in Supply^b	50% Reduction in Supply^c
Revenues				
Water Sales	\$ 3,893,415	\$ 3,343,487	\$ 3,068,522	\$ 2,518,594
New Service Fees	\$ 20,000	\$ 20,000	\$ 20,000	\$ 20,000
Late Fees & Shut-off Notices	\$ 26,300	\$ 26,300	\$ 26,300	\$ 26,300
Front Footage Fees	\$ 10,000	\$ 10,000	\$ 10,000	\$ 10,000
Connections Fees	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000
Other Water Revenues	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Miscellaneous Revenue	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Totals	\$ 4,084,715	\$ 3,534,787	\$ 3,259,822	\$ 2,709,894
Expenditures				
Purchase of Water	\$1,350,000	\$1,080,000	\$945,000	\$675,000
Salary & Wages	\$652,610	\$652,610	\$652,610	\$652,610
Employee Benefits	\$293,253	\$293,253	\$293,253	\$293,253
Professional Services	\$491,240	\$491,240	\$491,240	\$491,240
Property Services	\$60,000	\$60,000	\$60,000	\$60,000
Operations	\$145,550	\$145,550	\$145,550	\$145,550
Supplies	\$222,500	\$222,500	\$222,500	\$222,500
Capital Assets	\$35,000	\$35,000	\$35,000	\$35,000
Construction & ISF	\$122,265	\$122,265	\$122,265	\$122,265
Debt Service	\$0	\$0	\$0	\$0
Transfers	\$755,088	\$755,088	\$755,088	\$755,088
Totals	\$4,127,506	\$3,857,506	\$3,722,506	\$3,452,506
Surplus (Deficit)	(\$42,791)	(\$322,719)	(\$462,684)	(\$742,612)
Reserves (as of 2010)	\$4,131,500	\$4,131,500	\$4,131,500	\$4,131,500
Available Balance ^a	\$2,700,000	\$2,700,000	\$2,700,000	\$2,700,000
Used to Cover Operations	(\$42,791)	(\$322,719)	(\$462,684)	(\$742,612)
Ending Balance	\$2,657,209	\$2,377,281	\$2,237,316	\$1,957,388

^a Available Balance excludes \$1.3 million "operational reserve"

The City has a "combined" operating and capital reserve fund. The current balance is just over \$4 million. In general, the City's policy is to maintain a 4-month operating reserve, which at current expenditure levels would be \$1.3 million. The remaining \$2.7 million is theoretically available to help manage revenue shortfalls. In order to manage a supply reduction, the City will need to defer capital expenditures and draw upon its reserves. Table 5.16 illustrates this strategy.

In the John Nelson report, it was recommended that the City adopt a water shortage drought surcharge to address declining revenues during droughts and prolonged water shortages. The City will be considering this drought surcharge during its next rate hearing.

5.7.6 Water Shortage Contingency Ordinance (Water Code 10632(h))

As noted earlier, the City has adopted a Water Shortage Emergency Plan which was codified by Ordinance in Section 13.10 of the Municipal Code. This Ordinance has been updated since 2005 and is attached in Appendix E.

5.7.7 Mechanisms for Determining Actual Reductions (Water Code 10632(i))

The City's wells and the SCWA's supply turnouts are all equipped with water meters. In addition, each potable and recycled water customer is metered. Non-residential landscape irrigation is metered separately from indoor use at most non-residential sites. The City reads meters on a bi-monthly basis and is able to document both demand reductions and a-typically high water use. The City contacts individual customers to resolve issues related to a-typically high water use.

SECTION 6

DEMAND MANAGEMENT MEASURES

Demand management measures (DMMs) are water conservation measures. The DMMs listed in the UWMP Act correlate to the California Urban Water Conservation Council's (CUWCC's) original Best Management Practices (BMPs) for water conservation. The 2010 Urban Water Management Plan (UWMP) Guidebook uses the terms DMMs and BMPs interchangeably. The purpose of this section is to provide a comprehensive description of the City of Sonoma's (City's) water conservation programs that are currently implemented and those that are planned to be implemented and how they correspond to the water use reduction plan meant to achieve the SBx7-7 2015 and 2020 water use targets.

6.1 DESCRIPTION OF DEMAND MANAGEMENT MEASURES

The 2010 UWMP Guidebook lists 14 conservation measures to be addressed. These DMMs correspond to the 14 BMPs in the original CUWCC Memorandum of Understanding (MOU). These are:

- Water Survey Programs for single-family and multi-family residential
- Residential Plumbing retrofit
- System water audit, leak detection, and repair
- Metering with commodity rates
- Large landscape conservation programs
- High efficiency washing machine rebates
- Public information programs
- School education programs
- Conservation programs for commercial, industrial, and institutional
- Wholesale agency programs
- Conservation pricing
- Water Conservation coordinator
- Water waste prohibition
- Residential ultra-low-flow toilet replacement

The City identifies three DMM categories in its water conservation planning: Tier 1, Tier 2, and New Development Standards (NDS). Tier 1 refers to the DMMs in the CUWCC reporting forms (bulleted above). Tier 2 refers to DMMs that are "above and beyond" the Tier 1 measures and can apply to new or existing development. NDS refers to conservation standards and requirements that are applicable to new development.

As allowed in the 2010 UWMP Guidebook, rather than include a narrative of the (Tier 1) DMMs currently implemented by the City, the City has included the completed CUWCC water conservation BMP reports for 2009 and 2010 in this UWMP. The BMP reports are included in Appendix F.

At the time of the completion of this UWMP, the coverage calculators of the CUWCC reporting database were not functioning. Therefore, the level of coverage is not known for certain. City staff is confident that the City is in compliance with the requirements of the CUWCC with one exception. BMP 5 is applied to non-residential landscapes and requires notifying water customers when they are 20 percent or more over their "water budgets." Upon confirming a test sample of square footage measurements previously used to develop water budgets, City staff found most of them to be inaccurate. Because of this, the City is in the

process of updating its non-residential landscape measurements and water budgets. Staff expects to be in compliance with BMP 5 in the next CUWCC reporting period.

6.2 DESCRIPTION OF DEMAND MANAGEMENT MEASURES BEYOND TIER 1

Section 3.4 of this UWMP describes the City's water conservation program and water savings expected to come from implementing those measures. Tables 3.18 and 3.19 list all of the measures to be implemented beyond Tier 1 DMMs.

6.3 CONSERVATION SAVINGS

The City's implementation plan includes a projected water conservation savings of 333 acre-feet per year by year 2035. This is described in further detail in Section 3 of this UWMP. With implementation of the City's water conservation plan, the City expects to meet its regional water use target by 2015. The City will aggressively pursue water conservation measures beyond Tier 1 by 2015 with the goal of meeting the City's individual water use target by 2020.

City of Sonoma

Sonoma Sister Cities:

No. 1 The Plaza
Sonoma, California 95476-6618
Phone (707) 938-3681 Fax (707) 938-8775
E-Mail: cityhall@sonomacity.org



Chambolle-Musigny, France
Greve in Chianti, Italy
Kaniv, Ukraine
Patzcuaro, Michoacán, Mexico

February 9, 2011

To: Interested Agencies

Re: Notice of Review and Preparation of the 2010 Urban Water Management Plan

The City of Sonoma is currently reviewing and updating the City's Urban Water Management Plan (UWMP), as required by law. The 2010 UWMP is due to the California Department of Water Resources by July 1, 2011. The UWMP will provide an analysis of projected water demand and supply over the next 25 years as well as an updated water conservation plan.

If you are interested in providing input during the preparation of the UWMP, please contact me at (707) 933-2230 or mbates@sonomacity.org.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Bates", is written over a horizontal line.

Milenka Bates
Public Works Director

City of Sonoma

Sonoma Sister Cities:

No. 1 The Plaza
Sonoma, California 95476-6618
Phone (707) 938-3681 Fax (707) 938-8775
E-Mail: cityhall@sonomacity.org



Chambolle-Musigny, France
Greve in Chianti, Italy
Kaniv, Ukraine
Patzcuaro, Michoacán, Mexico

Distribution List:

Sonoma County Water Agency, Attention: Grant Davis
Sonoma Valley County Sanitation District, Attention: Grant Davis
Valley of the Moon Water District, Attention: Krishna Kumar
City of Santa Rosa, Attention: Glen Wright
City of Rohnert Park, Attention: Darrin Jenkins
City of Cotati, Attention: Damien O'Bid
City of Petaluma, Attention: Pamela Tuft
Town of Windsor, Attention: Richard Burt
North Marin Water District, Attention: Chris DeGabriele
Sonoma Valley Basin Advisory Panel, Attention: Marcus Trotta
Sonoma Ecology Center, Attention: Richard Dale
County of Sonoma PRMD, Attention: Pete Parkinson

Source: Volunteer Now Sonoma Valley

Wanted: more caring adults to mentor kids in our community

Join your neighbors and friends on Thursday, Feb. 3 from 5:30 to 7p.m. for a complimentary cocktail party at Saddles Restaurant/MacArthur Place as the Sonoma Valley Mentoring Alliance holds its annual recruitment event. There will be no obligation information presented about becoming a mentor, as well as a chance to ask questions, get answers, and mix and mingle with mentors who are happy to share their own experiences as a volunteer in the Stand By Me Mentoring Program.

The Mentoring Alliance is celebrating 15 years of matching local school children with caring adult role models from the Sonoma community. Presently, there are 450 kids who have a mentor in their life, but many more are waiting. Now, more than

ever, kids need someone to support them, boost their confidence, and give them the encouragement to set goals for their future.

Careful attention is paid up front to assure that the best matches are made. Mentors commit to meeting with their mentee for one hour a week at a Mentor Center located on 8 public school campuses. On-going training and support is provided, as well as an array of field trips, social events, and extra-curricular activities that help to foster relationships.

There is no cost to become a mentor. Your gift is the one-on-one time you spend building a trusting, caring friendship in a safe and supportive environment.

For more information, call the Mentoring Alliance at 938.1990, or check out the website at sonoma-mentoring.org.



Deepening applications for an artist-in-residence for its ceramics program to begin July 1, 2011. The artist will be selected to participate in a six-month residency based on artistic merit as represented by the artist's portfolio, a letter of intent outlining the work they intend to create while at the Community Center, and two professional letters of recommendation.

Applications are due no later than March 1. The selected artist-in-residence will be notified by March 15.

The program affords a self-directed emerging or established artist in transition, a supportive environment in which to explore their artwork and ideas. It is designed for those who are dedicated to developing a body of work with a specific

The program is open to all artists living within the United States and culminates with a gallery exhibition at the end of the residency period.

This residency provides a small living space for the artist; limited access to the center's full-sized kitchen, Internet access, a dedicated space in the ceramics studio, and full time studio access and reduced rates on some materials fees and firings. Resident artists will also have the option to teach (paid) during the regular class sessions, workshops, and summer art camps.

For more information, or to obtain an application for this residency contact the 938.4626, ext. 1, sonomacommunitycenter.org or cc-forrest@vom.com.

File over

CITY OF SONOMA VALLEY OF THE MOON WATER DISTRICT

The City of Sonoma and the Valley of the Moon Water District are currently reviewing and updating their individual Urban Water Management Plans (UWMPs). Water suppliers are required by law to update their UWMPs every five years. The 2010 UWMPs are due to be submitted to the California Department of Water Resources by July 1, 2011. Each UWMP will provide an analysis of projected water demand and supply over the next 25 years as well as an updated water conservation plan. The public will have an opportunity to review and comment on the draft UWMP. For any questions regarding this Notice or if you are interested in providing input during the preparation of the UWMP, please contact one of the following people: For City of Sonoma water customers, contact Milenka Bates at 933-2230 or at mbates@sonomacity.org. For Valley of the Moon water customers, contact Shari Walk at 996-1037 or at swalk@vomwd.com.

CERTIFICATION OF PUBLICATION IN
"The Sonoma Index-Tribune"
(Published every Tuesday and Friday)
in the
SUPERIOR COURT
of the
STATE OF CALIFORNIA
In and For the County of Sonoma

"PUBLIC NOTICE"

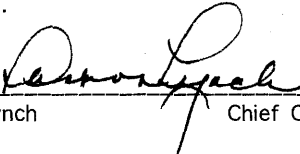
COUNTY OF SONOMA

STATE OF CALIFORNIA, The undersigned does hereby certify and declare: That at all times hereinafter sworn, deposes and says: That at all times hereinafter mentioned she was a citizen of the United States, over the age of eighteen years and a resident of said county and was at all said times the principal clerk of the printer and publisher of The Sonoma Index-Tribune, a newspaper of general circulation, printed and published in the City of Sonoma, in said County of Sonoma, State of California; that The Sonoma Index-Tribune is and was at all times herein mentioned, a newspaper of general circulation as that term is defined by Section 6000 of the Government Code; its status as such newspaper of general circulation having been established by Court Decree No. 35815 of the Superior Court of the State of California, in and for the County of Sonoma, Department No. 1 thereof; and as provided by said Section 6000, is published for the dissemination of local and telegraphic news and intelligence of a general character, having a bona fide subscription list of paying subscribers, and is not devoted to the interest, or published for the entertainment or instruction of a particular class, profession, trade, calling, race or denomination, or for the entertainment and instruction of such classes, professions, trades, callings, races or denominations; that at all said times said newspaper has been established, printed and published in the said City of Sonoma, in said County and State at regular intervals for more than one year preceding the first publication of this notice herein mentioned; that said notice was set in type not smaller than non-pareil and was preceded with words printed in black face type no smaller than non-pareil, describing and expressing in general terms, the purport and character of the notice intended to be given; that the "Public Notice" of which the annexed is a printed copy, was published in said newspaper at least one time, commencing on the 11th day of February and ending on 11th day of February, 2011 to-wit February 11, 2011.

* * *

I HEREBY CERTIFY AND DECLARE UNDER THE PENALTY OF perjury that the foregoing is true and correct.
EXECUTED this 11th day of February, 2011 at Sonoma, California.

Signed



Sharon Lynch

Chief Clerk

**CITY OF SONOMA
VALLEY OF THE MOON WATER DISTRICT**

The City of Sonoma and the Valley of the Moon Water District are currently reviewing and updating their individual Urban Water Management Plans (UWMPs). Water suppliers are required by law to update their UWMPs every five years. The 2010 UWMPs are due to be submitted to the California Department of Water Resources by July 1, 2011. Each UWMP will provide an analysis of projected water demand and supply over the next 25 years as well as an updated water conservation plan. The public will have an opportunity to review and comment on the draft UWMP. For any questions regarding this Notice or if you are interested in providing input during the preparation of the UWMP, please contact one of the following people: For City of Sonoma water customers, contact Milenka Bates at 933-2230 or at mbates@sonomacity.org. For Valley of the Moon water customers, contact Shari Walk at 996-1037 or at swalk@vomwd.com.

2-29 Pub. Feb. 11, 2011

(10)



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SIGNATURE

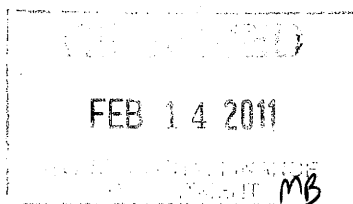
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Please return the top portion of this statement along with your payment

Quantity	Description	Rate	Amount
4	PUBLIC NOTICE: CITY OF SONOMA & VOM WATER DISTRICT/URBAN WATER MANAGEMENT PLANS PUB FEB 11, 2011	\$10.00	\$40.00

Total Due \$ \$40.00

510 62001 358
MB



Date

Approved by

Account

Terms: NET 20 - CREDIT ESTABLISHED

00220
Sonoma, City Of
Invoice Date: 2/11/2011

Notice of Public Hearing

The City Council of the City of Sonoma will hold a public hearing on June 6, 2011 at 6:00 p.m. at Community Meeting Room 177 First Street West, to receive comments on 1) Community Water Use Target for 2020, as required by the Water Conservation Act of 2009 and 2) draft 2010 Urban Water Management Plan. The Plan may be reviewed at:

City Hall Building Department Counter, No. 1 The Plaza, Sonoma, CA 95476

City's web page at <http://www.sonomacity.org>

Oral and written testimony will be taken at the hearing. Written comments may also be submitted to the Director of Public Works of the City of Sonoma, No. 1 The Plaza, Sonoma, Ca 95476, for receipt prior to the hearing.

Notice of Public Hearing

City of Sonoma

Hearing Topics: 1) Community Water Use Target for 2020, as required by Senate Bill x7-7, the Water Conservation Act of 2009 and 2) draft 2010 Urban Water Management Plan

Date: June 6, 2011, 6:00 pm

Location: Community Meeting Room
177 First Street West
Sonoma, Ca 95476

The City Council of the City of Sonoma will hold a public hearing on June 6, 2011 at 6:00 p.m. to receive comments on 1) Community Water Use Target for 2020, as required by Senate Bill x7-7, the Water Conservation Act of 2009 and 2) draft 2010 Urban Water Management Plan (Plan). The City's proposed Community Water Use Target for 2020 is included in the Plan. The purpose of the Plan is to consolidate information regarding water supply and demand, provide public information, and improve statewide water planning. The Plan may be reviewed at the following locations:

City Hall Building Department Counter, No. 1 The Plaza, Sonoma, CA 95476

City of Sonoma's web page at <http://www.sonomacity.org>

Oral and written testimony will be taken at the hearing. Written comments may also be submitted to the Director of Public Works of the City of Sonoma, No. 1 The Plaza, Sonoma, Ca 95476, for receipt prior to the hearing.

PROOF OF PUBLICATION

(2015.5 C.C.P.)

STATE OF CALIFORNIA

County of Sonoma

I am a citizen of the United States and a resident of the county aforesaid: I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the principal clerk of the printer of The Press Democrat, a newspaper of general circulation, printed and published DAILY IN THE City of Santa Rosa, County of Sonoma; and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Sonoma, State of California, under the date of November 29, 1951, Case number 34831, that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates to wit:

The Press Democrat - Legal Notices
5/23 1x - 05/23/2011

I certify (or declare) under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct.

Dated at Santa Rosa, California, on

05/23/2011



SIGNATURE

This space for County Clerk's Filing Stamp

Proof of Publication of

NOTICE OF PUBLIC HEARING

The City Council of the City of Sonoma will hold a public hearing on June 6, 2011 at 6:00 p.m. at City Hall, No. 1 The Plaza, to receive comments on 1) Community Water Use Target for 2020, as required by the Water Conservation Act of 2009 and 2) draft 2010 Urban Water Management Plan. The Plan may be reviewed at:

City Hall Building Department Counter, No. 1 The Plaza, Sonoma, CA 95476

City's web page at <http://www.sonoma-city.org>

Oral and written testimony will be taken at the hearing. Written comments may also be submitted to the Director of Public Works of the City of Sonoma, No. 1 The Plaza, Sonoma, Ca 95476, for receipt prior to the hearing.

Printed: May 23, 2011 11i

CITY OF SONOMA

RESOLUTION NO. 16 - 2011

A RESOLUTION ADOPTING THE

- 1) COMMUNITY WATER USE TARGET FOR 2020 AT
173 GALLONS PER CAPITA PER DAY AND;**
- 2) CITY OF SONOMA 2010 URBAN WATER MANAGEMENT PLAN**

WHEREAS, the State Legislature signed into law, the Water Conservation Act of 2009 (commonly referred to as SBx7-7) setting a goal of 20 percent reduction in statewide urban per capita water use by year 2020 and requires urban water retailers that must comply with the Urban Water Management (UWMP) Planning Act to set a community urban water use target for 2020; and

WHEREAS, SBx7-7 requires each urban water retailer to determine its 1) base gross gallons per capita per day (gpcd), 2) interim 2015 and final 2020 community water use targets, 3) 5 percent minimum water use reduction requirement, and 4) 2015 and 2020 compliance year gross gpcd and include this information in the 2010 UWMP; and

WHEREAS, SBx7-7 requires each urban retail water agency to conduct at least one public hearing to accomplish all of the following: 1) allow community input regarding the urban retail water supplier's implementation plan for complying with this requirement, 2) consider the economic impacts of the urban retail water supplier's implementation plan for complying this requirement, and 3) adopt a method for determining its community water use targets; and

WHEREAS, City staff recommends that Council adopt SBx7-7 Method 1 to set the City's interim 2015 community water use target at 195 gpcd and final 2020 community water use target at 173 gpcd; and

WHEREAS, for purposes of reporting and compliance with SBx7-7, Council has approved formation of a Regional Alliance with water contractors and customers to the Sonoma County Water Agency at its meeting of April 18, 2011 which provides that the City, together with the regional alliance members, will be in compliance with the interim 2015 regional water use target of 142 gpcd and the regional final 2020 regional water use target of 129 gpcd; and

WHEREAS, the UWMP Planning Act, California Water Code Section 10610 *et seq.*, requires that every urban water supplier directly or indirectly supplying water for municipal purposes to more than 3,000 customer prepare a UWMP, the primary objective of which is to plan for the conservation and efficient use of water and to establish the appropriate level of reliability in its water service that is sufficient to meet the needs of its customers during normal, dry, and multiple-dry water years; and

WHEREAS, City staff, with the assistance of its consultants, John Nelson and Winzler & Kelly, has prepared the 2010 Draft UWMP for the City to meet the requirements of the UWMP Planning Act, in accordance with guidelines developed by the California Department of Water Resources (DWR); and

WHEREAS, City staff and consultants who prepared the 2010 UWMP have the training, experience, and expertise necessary to prepare a plan meeting the requirements of the UWMP Planning Act; and

WHEREAS, the 2010 UWMP must be adopted after public review and a public hearing by the City Council and must be filed with DWR; and

WHEREAS, the City, in compliance with the legislative requirements, has prepared a Water Use Reduction Implementation (provided in the 2010 UWMP) and the 2010 UWMP and commencing on May 23, 2011 made those documents available for public review; and

WHEREAS, the City, on June 6, 2011, held a duly noticed public hearing before this Council and received comments; and

WHEREAS, City staff, consultants and the Council have reviewed and considered the comments made on the 2010 UWMP, and Council has reviewed and considered the final 2010 UWMP, City staff report, and the presentations by City staff; and

WHEREAS, the 2010 UWMP was prepared in accordance with, and meets the requirements of, the UWMP Planning Act, and the facts, assumptions and analyses in the 2010 UWMP are reasonable and supported by substantial evidence.

NOW, THEREFORE, BE IT RESOLVED THAT THE CITY OF SONOMA hereby finds, determines and declares as follows:

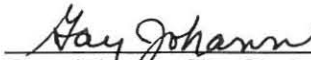
1. All of the above recitals are true and correct.
2. SBx7-7 Method 1 is hereby adopted to set the Interim 2015 Community Water Use Target at 195 gpcd and Final 2020 Community Water Use Target at 173 gpcd.
3. The 2010 Urban Water Management Plan is hereby approved and adopted.
4. The Public Works Director is authorized and directed to provide a copy of the 2010 UWMP to the California Department of Water Resources and otherwise as required by Water code section 10644(a).

ADOPTED this 6th day of June 2011 by the following vote:

AYES:	Rouse, Sanders, Brown, Barbose, Gallian
NOES:	None
ABSENT:	None


Laurie Gallian, Mayor

ATTEST:


Gay Johann, City Clerk

City of Sonoma

Department of Public Works
No. 1 The Plaza
Sonoma California 95476-6690
Phone (707) 938-3332 Fax (707) 938-8775
E-Mail: cityhall@sonomacity.org



July 1, 2011

Department of Water Resources (DWR)
Statewide Integrated Water Management
Water Use and Efficiency Branch
P.O. Box 942836
Sacramento, CA 94236-0001
Attention: Coordinator, Urban Water Management Plans

California State Library (State Library)
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attention: Coordinator, Urban Water Management Plans

County of Sonoma
2300 County Center Drive, Suite B177
Santa Rosa, CA 95403
Attention: County Clerk

Enclosed is your copy of the Final Urban Water Management Plan 2010 for the City of Sonoma in the following formats: Print copy plus CD (DWR), CD copy (State Library), and Print copy (County Clerk).

A copy of the UWMP checklist can be found in Appendix G of the attached report. For any questions regarding this report, please feel free to call me at (707) 933-2230 or email at mbates@sonomacity.org.

Sincerely,

Milenka Bates
Public Works Director

City of Sonoma

Department of Public Works

No. 1 The Plaza

Sonoma California 95476-6690

Phone (707) 938-3332 Fax (707) 938-3240



May 23, 2011

To: Interested Agencies

Re: Notice of Availability of the 2010 Draft Urban Water Management Plan

The City of Sonoma Draft 2010 Urban Water Management Plan (draft plan) is now available for public review. A copy of the draft plan can be found at the following website link: <http://www.sonomacity.org>. A copy of the draft plan may also be viewed during normal business hours at the City Hall main office located at:

No. 1 The Plaza
Sonoma, CA 95476

The City Council will hold a public hearing at 6:00 p.m., June 6, 2011 in the Community Meeting Room at the below address to receive comments to the draft plan.

City of Sonoma
Community Meeting Room
177 First Street West
Sonoma, CA 95476

Comments can also be received by emailing to: mbates@sonomacity.org prior to the hearing date.

Sincerely,

Milenka Bates

Director of Public Works

Distribution List:

Sonoma County Water Agency, Attention: Grant Davis
Sonoma Valley County Sanitation District, Attention: Grant Davis
Valley of the Moon Water District, Attention: Krishna Kumar
City of Santa Rosa, Attention: Glen Wright
City of Rohnert Park, Attention: Darrin Jenkins
City of Cotati, Attention: Damien O'Bid
City of Petaluma, Attention: Pamela Tuft
Town of Windsor, Attention: Richard Burt
North Marin Water District, Attention: Chris DeGabriele
County of Sonoma PRMD, Attention: Pete Parkinson
Sonoma Valley Basin Advisory Panel, Attention: Marcus Trotta
Sonoma Ecology Center, Attention: Richard Dale
City of Sonoma Planning Commission, Attention: David Goodison
City of Sonoma Community Services Environmental Commission, Attention: Milenka Bates
Kathy Pons

Regional Alliance Baseline and Water Use Target Calculations for the Sonoma County Water Agency Water Contractors

Senate Bill x7-7, the Water Conservation Act, was signed into law in 2009. The legislation set a goal of 20% reduction in statewide urban per capita water use and requires urban water retailers that must comply with the Urban Water Management Planning Act to set a 2020 urban per capita water use target.

The legislation provides that urban water retail suppliers may plan, comply, and report on the 2020 urban per capita water use target on a regional basis, an individual basis, or both.

10608.20. (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

10608.28. (a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

- (1) Through an urban wholesale water supplier.*
- (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31(commencing with Section 81300)).*
- (3) Through a regional water management group as defined in Section 10537.*
- (4) By an integrated regional water management funding area.*
- (5) By hydrologic region.*
- (6) Through other appropriate geographic scales for which computation methods have been developed by the department.*

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

Regional Alliance Baseline and Target Calculation

Per Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (DWR Methodologies), the Water Contractors of the Sonoma County Water Agency (Water Contractors) are eligible to form a regional alliance because we are recipients of water from a common wholesale water supplier.

Per the DWR Methodologies, there are three options for calculating a regional alliance target. The first option is for each member of the regional alliance to calculate their individual target and then weight the individual targets by each member's population. The weighted targets are then averaged to determine the regional alliance target. Current population data can be used for generating the regional target.

The second option is to sum up each member's gross water use and service area populations to develop a regional gross water use and population. A base daily per capita water use would be calculated and a target would be calculated using one of the following four methods:

1. 80% of the regional alliance's baseline per capita daily water use;

2. Performance standards of 55 gallons per capita per day for indoor water use, water efficiency equivalent to the Model Water Efficient Landscape Ordinance for landscapes irrigated through dedicated or residential meters, and a 10% reduction in Commercial, Industrial, Institutional water use;
3. 95% of the applicable state hydrologic region target as set forth in the State's 20x2020 Water Conservation Plan. If the area includes more than one hydrologic region, the area should be apportioned to each region based on population or area; or
4. Provisional Target Method 4 developed by DWR.

Alliances must have all of their members use the same baseline period.

The third option is to calculate regional gross water use or population directly for the entire regional alliance area. A base daily per capita water use would be calculated and a target would be calculated using one of the four methods listed above. As with the second option, alliances must have all of their members use the same baseline period. The regional target may not exceed 95% of the region's 5-year Base Daily Per Capita Water Use.

The data to calculate the third option is not easily available. Therefore, option 1 and option 2 were used for calculating a regional target for the Water Contractors. Upon review and evaluation, the Water Contractors are recommending option 1, below, for calculating the regional target.

Option 1 - Target

SCWA Service Area Regional 2020 Targets (DWR Methodology # 9)

SCWA Water Contractor	2015			2020		
	Current Population*	Water Contractor Staff Recommended Individual GPCD Target**	Product of Individual Population Size and GPCD Target [(1) x (2)]	Current Population	Water Contractor Staff Recommended Individual GPCD Target**	Product of Individual Population Size and GPCD Target [(1) x (2)]
	(1)	(2)	(3)	(1)	(2)	(3)
Santa Rosa	163,436	136	22,227,296	163,436	127	20,756,372
North Marin	61,012	161	9,822,932	61,012	143	8,724,716
Petaluma	58,401	153	8,935,353	58,401	136	7,942,536
Rohnert Park	43,398	140	6,075,720	43,398	119	5,164,362
VOMWD	23,478	136	3,193,008	23,478	124	2,911,272
Sonoma	11,426	194	2,216,644	11,426	173	1,976,698
Cotati	7,711	134	1,033,274	7,711	130	1,002,430
Windsor	28,134	143	4,023,162	28,134	130	3,657,420
MMWD	190,600	137	26,074,080	190,600	124	23,634,400
Total	587,596		83,601,469	587,596		75,770,206
Regional GPCD Target [Total of (3) / Total of (1)]				2015	2020	
				142	129	
<i>* Current population from Water Contractor or from Department of Finance when not available from Water Contractor.</i>						
<i>** Subject to change. Target has to be set via public hearing.</i>						

Option 1 – Compliance Daily Per Capita Water Use Calculation

SCWA Service Area Regional Compliance Daily Per Capita Water Use (DWR Methodology # 9)				
SCWA Water Contractor	2015		2020	
	Projected Population	Annual Projected Water Demand after conservation and recycled water deducts in A.F.*	Projected Population	Annual Projected Water Demand after conservation and recycled water deducts in A.F.*
	(1)	(2)	(1)	(2)
Santa Rosa	194,851	27,194	204,519	27,934
North Marin	62,589	11,471	64,804	11,376
Petaluma	64,704	11,090	67,425	10,270
Rohnert Park	46,400	5,348	47,900	5,306
VOMWD	24,174	3,465	24,873	3,445
Sonoma	12,149	2,605	12,871	2,643
Cotati	8,105	1,079	8,518	1,096
Windsor	29,515	5,019	30,715	5,173
MMWD	195,200	27,761	198,200	27,359
Total	637,687	95,032	659,825	94,602
Projected Regional GPCD [Total of (2), in gpd / Total of (1)]			2015	2020
Is the Projected Regional GPCD equal to or under Regional GPCD Target?			133	128
			YES	YES
* Water Conservation and recycled water deducts subject to change.				

Data Reporting

A regional alliance must send a letter to DWR by July 1, 2011 stating that an alliance had been formed and including a list of alliance members. Regional alliances that do not submit a regional UWMP must submit regional alliance reports, including the following information:

- A list of the individual members in the alliance
- Baseline gross water use and service area population
- Individual 2015 and 2020 Water Use Targets for each alliance member as well as the regional 2015 and 2020 Water Use Targets
- Compliance year gross water use and service area population
- Adjustments to gross water use in compliance year

The above information must also be included in each regional alliance member's individual UWMP.

Compliance Assessment

If a regional alliance meets its regional target, all members in the alliance will be deemed compliant. If a regional alliance fails to meet its regional target, individual members who meet their individual targets will be deemed compliant. If a regional alliance fails to meet its regional target and an individual member fails to meet its individual target, the individual member will be deemed non-compliant.

Public Hearing Requirement

The legislation requires the urban retail water agency to select its 2020 water use target as detailed below:

10608.26. (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.

Regional Alliance Agreements and Dissolution

It is up to each regional alliance to determine the appropriate Memorandum of Understanding (MOU) or Agreement for a Regional Alliance. DWR will not review or approve MOUs or Agreements used to create a Regional Alliance, however any MOU or Agreement must be in compliance with all applicable sections of the Water Code.

Individual members can withdraw from a regional alliance. The individual member that withdraws must comply individually with the water use target and the Regional Alliance must recalculate the regional baseline and target data. The Regional Alliance may dissolve prior to 2020. If a Regional Alliance dissolves, individual members must comply individually with the water use target.

Letter Agreement
Between and Among
Cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor
And
North Marin Water District, Marin Municipal Water District
and Valley of the Moon Water District
For
Establishing a Regional Alliance to Comply with
SB x7-7 the Water Conservation Act of 2009

Recitals

A. The Water Conservation Act of 2009 (SB x7-7) set a goal of achieving a 20% reduction in statewide urban per capita water use by the year 2020 and requires urban water retailers to set a 2020 urban per capita water use target. SB x7-7 provides that urban water retailers may plan, comply and report on a regional basis, individual basis or both.

B. The Parties to this Letter Agreement (Cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor and North Marin, Marin Municipal and Valley of the Moon Water Districts) are eligible to form a “Regional Alliance” pursuant to the *Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (DWR Methodologies) because the Parties receive water from a common water wholesale water supplier, the Sonoma County Water Agency (Agency). The Parties desire to establish a Regional Alliance for purposes of complying with SB x7-7.

C. The Parties and the Agency are signatories to the Sonoma-Marin Saving Water Partnership Memorandum of Understanding (S-MSWP MOU) that provides for the identification and implementation of regional water conservation programs and tasks as directed by the Water Advisory Committee (WAC). The S-MSWP MOU requires financial and reporting commitments for implementation of water conservation programs.

Agreement for Regional Alliance Target Setting and Reporting

1. Regional Alliance Formation and Target Setting

Pursuant to the DWR Methodologies, the Parties hereby form a Regional Alliance and agree to send a letter to the Department of Water Resources (DWR) prior to July 1, 2011 informing DWR that a Regional Alliance has been formed. The Parties agree that the Regional Alliance Target will be established using Option 1 (as Option 1 is described in the DWR Methodologies) and that each Party will include the Regional Alliance Target in its individual 2010 Urban Water Management Plan.

2. Regional Alliance Review

No later than December 31, 2015, the Parties agree to review and re-analyze the Regional Alliance and Regional Alliance Target as part of the preparation of the 2015 Urban Water Management Plan.

3. Regional Alliance Reporting

The Parties agree to prepare Regional Alliance Reports pursuant to the DWR Methodologies including but not limited to the following information: baseline gross water use and service area population, individual 2015 and 2020 water use targets for each Party and for the Regional Alliance, compliance year gross water use and service area population, and adjustments to gross water use in compliance year. The information will be provided by each Party and reported in the annual S-MSWP report in addition to the information required in the annual report, as outlined in the S-MSWP MOU.

4. Regional Water Supply Planning

The Parties agree to participate in discussions regarding regional water supply planning.

5. Regional Alliance Dissolution

The Parties agree that each Party can withdraw from the Regional Alliance at any time without penalty by giving written notice to all other Parties. If a Party withdraws from the Regional Alliance, the Parties agree that the Regional Target will be recalculated among remaining participating Parties as set forth in the DWR Methodologies and in Section 2 above.

6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by May 1, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by May 1, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies and in Section 2 above.

7. Letter Agreement Authorization

This Letter Agreement may be signed in counterparts. By signing below, each signatory states that he or she is authorized to sign this Letter Agreement on behalf of the Party for which he or she is signing.

_____	_____
Name: _____	Date
City of Santa Rosa	

_____	_____
Name: _____	Date
City of Rohnert Park	

_____	_____
Name: _____	Date
City of Sonoma	

_____	_____
Name: _____	Date
City of Cotati	

Name: _____

City of Petaluma

Date

Name: _____

Town of Windsor

Date

Name: _____

North Marin Water District

Date

Name: _____

Marin Municipal Water District

Date

Name: _____

Valley of the Moon Water District

Date

ORDINANCE NO. 2000-6

AN ORDINANCE OF THE CITY OF SONOMA INSTITUTING WATER WASTE PROHIBITIONS

The City Council of the City of Sonoma does hereby ordain as follows:

SECTION 1.

Section 13.04.024 “Water Waste Prohibitions” is hereby added to Chapter 13.04 “City Water System” of the Sonoma Municipal Code to read as follows:

Section 13.04.024 - Water Waste Prohibitions

A. Purpose. The purpose of this Section is to promote water conservation and the efficient use of potable water furnished by the City of Sonoma by eliminating intentional or unintentional water waste when a reasonable alternative solution is available, and by prohibiting use of equipment which is wasteful.

B. Nonessential Uses. During such period of time when the Sonoma County Water Agency has declared a stage 2 or stage 3 water conservation condition, or whenever the City Council of the City of Sonoma shall declare the existence of a water conservation condition, no customer of the City of Sonoma shall use or permit the use of potable water from the City of Sonoma for residential, commercial, institutional, industrial, agricultural, or other purpose for the following nonessential uses:

1. The washing of sidewalks, walkways, driveways, parking lots and other hard-surfaced areas by direct hosing, except as may be necessary to properly dispose of or wash away spills that present a trip and fall hazard, or to prevent or eliminate materials dangerous to the public health and safety;
2. The escape of water through breaks or leaks within the customers plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of seventy-two (72) hours after the customer discovers such a break or leak or receives notice from the City of Sonoma, is a reasonable time within which to correct such break or leak or, as a minimum, to stop the flow of water from such break or leak;
3. Irrigation in a manner or to an extent which allows excessive run off of water or unreasonable over-spray of the areas being watered. Every customer is deemed to have his water system under control at all times, to know the manner and extent of his water use and any run off, and to employ available alternatives to apply irrigation water in a reasonably efficient manner;

4. Washing cars, boats, trailers or other vehicles and machinery directly with a hose not equipped with a shutoff nozzle;
5. Water for non-recycling decorative water fountains;
6. Water for single pass evaporative cooling systems for air conditioning in all connections installed after April 5, 2000 unless required for health or safety reasons;
7. Water for new non-recirculating conveyor car wash systems; and
8. Water for new non-recirculating industrial clothes wash systems.

C. Exempt Water Uses. All water use associated with the operation and maintenance of fire suppression equipment or employed by the City of Sonoma for water quality flushing and sanitation purposes shall be exempt from the provisions of this section. Use of water supplied by a private well or from a reclaimed waste water, gray water or rainwater utilization system is also exempt.

D. Variances. Any customer of the City of Sonoma may make written application for a variance. Said application shall describe in detail why applicant believes a variance is justified.

1. The City Manager or his or her designee may grant variances for use of water otherwise prohibited by this section upon finding and determining that failure to do so would cause an emergency condition affecting the health, sanitation, fire protection or safety of the applicant or public; or, cause an unnecessary and undue hardship on applicant or public, including but not limited to, adverse economic impacts, such as loss of production or jobs.
2. The decision of the City Manager or his or her designee may be appealed to the City Council by submitting a written appeal to the City Clerk within fifteen (15) calendar days of the date of the decision. Upon granting any appeal, the City Council may impose any conditions it determines to be just and proper. Variances granted by the City Council shall be prepared in writing and the City Council may require the variance be recorded at applicant's expense.

E. Enforcement and Fees. Depending on the extent of the water waste the City of Sonoma may, after written notification to customer and a reasonable time to correct the violation as solely determined by the City of Sonoma, take some or all of the following actions. Penalties, fees and charges noted below shall be established by resolution of the City of Sonoma. The City shall not be obligated to take any of the actions set forth below in any certain order, nor is the City prevented from selecting any one or all of the items listed below as the means to enforce this ordinance in any given situation. The methods of enforcement set forth below are not mutually

exclusive, and the use of one form of enforcement shall not prevent the subsequent use of another form of enforcement.

1. Written notice to the customer of the water waste violation including a specified period of time to correct the violation.
2. Personal contact with the customer at the address of the water service. If personal contact is unsuccessful, written notice of the violation including a date that the violation is to be corrected may be left on the premises, with a copy of the notice sent by certified mail to the customer.
3. The City of Sonoma may install a flow-restricting device on the service line.
4. The City of Sonoma may levy a water waste fee to the customer.
5. The City of Sonoma may cause termination of water service and the charge for same shall be billed to the customer. Except in cases of extreme emergency as solely determined by the City Manager or his or her designee, service shall not be reinstated until verified by the City of Sonoma that the violation has been corrected and all charges and fees have been paid.

SECTION II. SEVERABILITY

If any section, subsection, sentence, clause, phrase, or word of this ordinance is for any reason held to be invalid, the validity of the remaining portion of this ordinance shall not be affected.

SECTION III. ENVIRONMENTAL DETERMINATION

The City of Sonoma determines that this ordinance is a Class 7 categorical exemption under section 15307 of the California Environmental Quality Act, which exempts actions by regulatory agencies for protection of natural resources.

SECTION IV. EFFECTIVE DATE

This ordinance shall take effect thirty (30) days from the date of its passage. Before expiration of fifteen (15) days after its passage, this ordinance or summary thereof, as provided in California Government Code Section 39633, shall be published at least once in a newspaper of general circulation published and circulated in the City of Sonoma.

Adopted and approved this ____ day of May, 2000.

AYES: _____
NOES: _____
ABSTAIN: _____

ABSENT: _____

MAYOR

ATTEST:

CITY CLERK

CITY OF SONOMA

ORDINANCE NO. 02 - 2009

AN ORDINANCE AMENDING TITLE 13 OF THE SONOMA MUNICIPAL CODE BY ADDING CHAPTER 13.10 "WATER SHORTAGE AND CONSERVATION PLAN" ESTABLISHING A WATER CONSERVATION AND SHORTAGE PLAN

The City Council of the City of Sonoma does ordain as follows:

SECTION 1. Section 13.04.024, "Water Waste Prohibitions," of the Sonoma Municipal Code is hereby repealed.

SECTION 2. The Municipal Code of the City of Sonoma is hereby amended by adding Chapter 13.10 Water Shortage and Conservation Plan, to Title 13, Water and Sewage, to read as follows:

Chapter 13.10 WATER CONSERVATION AND SHORTAGE PLAN

Sections:

13.10.010	Scope.
13.10.020	Declaration of policy.
13.10.030	Definitions.
13.10.040	Authorization.
13.10.050	Application.
13.10.060	Water waste prohibitions.
13.10.070	Water conservation stages.
13.10.080	Exceptions and application procedures for exceptions.
13.10.090	Violation--Enforcement.
13.10.100	Notice and Hearing
13.10.110	Violation--Additional remedy.

13.10.010 Purpose and authority.

The purpose of this Water Shortage and Conservation Plan is to conserve the water supply of the City for the greatest public benefit with particular regard to public health, fire protection and domestic use, to conserve water by reducing waste, and to achieve water use reductions in response to water shortages that occur from time to time.

Nothing in this ordinance shall preclude the City Council from passing an emergency resolution for the immediate curtailment of water use by its customers due to water supply shortages and delivery limitations caused by catastrophic events and conditions, either natural or unnatural.

13.10.020 Declaration of policy.

It is declared that, because of the conditions prevailing in the City and in the County of Sonoma, the public health, safety, and welfare requires that the water resources available to the City be

put to the maximum beneficial use to the extent to which they are capable, to promote water conservation and the efficient use of potable water furnished by the City, by eliminating intentional or unintentional water waste when a reasonable alternative solution is available, and by prohibiting use of equipment which is wasteful.

13.10.030 Definitions.

"Allotment" means the maximum quantity of water allowed for each customer over any applicable period as established in the water rationing provisions in this chapter.

"City" means the City of Sonoma acting by and through the City of Sonoma public works department as operator of the City of Sonoma water system.

"City Manager" is the city manager of the City of Sonoma

"Customer" means any person, whether within or without the geographic boundaries of the City of Sonoma, who uses water supplied by the City.

"Director" is the public works director of the City of Sonoma.

"Excess-use" means the usage of water by a water customer in excess of the water allotment provided under the water rationing provisions of this chapter, over an applicable period.

"GPD" means gallons per day.

"Municipal Code" means the Municipal Code of the City of Sonoma.

"Person" means any person, firm, partnership, association, corporation, company, organization, or governmental entity.

"Service interruption" means the temporary suspension of water supply, or reduction of pressure below that required for adequate supply, to any customer, portion of a water supply, or entire system.

"Water rationing" means procedures established to provide for the systematic distribution of critically-limited water supplies, in order to balance demand and limited available supplies, and to assure that sufficient water is available to preserve public health and safety.

13.10.040 Authorization.

The City Manager or his/her designee, is authorized and directed to implement the applicable provisions of this chapter upon determination that such implementation is necessary to protect the public health, safety, and welfare.

13.10.050 Application.

The provisions of this chapter shall apply to all persons, customers, and property served by the City.

13.10.060 Waste of Water Prohibited.

It is unlawful for a customer to permit potable water to escape down a gutter, ditch, or other surface drain and/or to fail to repair a controllable leak of water due to defective plumbing. No

customer of the City shall use or permit the use of potable water from the City for residential, commercial, institutional, industrial, agricultural, or other purpose for the non-essential uses as defined in Section 13.10.060(A).

A. **Nonessential Uses.** Non-essential uses are defined as follows:

1. The washing of sidewalks, walkways, driveways, parking lots and other hard-surfaced areas by direct hosing, except as may be necessary to properly dispose of flammable or other dangerous liquids or substances, wash away spills that present a trip and fall hazard, or to prevent or eliminate materials dangerous to the public health and safety provided that the disposal of such is in conformance with chapter 13.32 Stormwater Management and Discharge Control;
2. The escape of water through breaks or leaks within the customers plumbing or private distribution system for any substantial period of time within which such break or leak should reasonably have been discovered and corrected. It shall be presumed that a period of seventy-two (72) hours after the customer discovers such a break or leak or receives notice from the City, is a reasonable time within which to correct such break or leak or, at a minimum, to stop the flow of water from such break or leak;
3. Irrigation in a manner or to an extent which allows excessive run off of water or unreasonable over-spray of the areas being watered. Every customer is deemed to have his/her water system under control at all times, to know the manner and extent of his/her water use and any run off, and to employ available alternatives to apply irrigation water in a reasonably efficient manner;
4. Washing cars, boats, trailers or other vehicles and machinery directly with a hose not equipped with a shutoff nozzle;
5. Water for non-recycling decorative water fountains; and
6. Water for non-recirculating conveyor car wash systems.

B. **Exempt Water Uses.** Use of water supplied by a private well or from a reclaimed wastewater, grey water or rainwater utilization system is exempt from this chapter.

13.10.070 Water shortage stages.

When a water shortage stage has been declared by resolution of the City Council, no customer of the City shall knowingly make, cause, use, or permit the use of water from the City for residential, commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of this chapter.

A. **Stage 1. Voluntary conservation – water shortage alert.** The City Council may by resolution declare a Stage 1 water shortage upon recommendation by the Director that the Board of Directors for the Sonoma County Water Agency has officially declared up to 15 percent reduction in Russian River water supply delivery to the City. In order to achieve an overall system-wide reduction goal of up to 15 percent of Russian River water supply deliveries, all potable water customers of the City shall be requested to:

1. Apply irrigation water only during the evening and early morning hours to reduce evaporation losses.
2. Inspect all irrigation systems, repair leaks, and adjust spray heads to provide optimum coverage and eliminate avoidable over-spray.
3. For irrigation valves controlling water applied to lawns, vary the minutes of run-time consistent with fluctuations in weather.

4. Reduce minutes of run-time for each irrigation cycle if water begins to run-off to gutters and ditches before the irrigation cycle is completed.
5. Become informed about and adhere to the City's Water Waste Prohibitions as established in Section 13.10.060.
6. Utilize water conservation rebate and other incentive programs to replace high water-use plumbing fixtures and appliances with water-efficient models.
7. Utilize City information regarding using water efficiently, reading water meters, repairing ordinary leaks, and how to apply water efficiently to landscaping.

B. Stage 2. Mandatory conservation – water shortage. The City Council may by resolution declare a Stage 2 water shortage upon recommendation by the Director that the Board of Directors of the Sonoma County Water Agency has officially declared a 16 percent to 25 percent reduction in Russian River water supply delivery to the City or if Stage 1 reduction goals cannot be met without implementing Stage 2. In order to achieve an overall system-wide reduction goal of up to 25 percent of Russian River water supply deliveries, the following restrictions shall apply in addition to Stage 1 restrictions as set forth in Sections 13.10.070(A):

1. Refilling or initial filling of a swimming pool is not permitted;
2. Use of water for ornamental fountains is not permitted;
3. Non-commercial washing of privately-owned motor vehicles, trailers and boats except from a bucket and a hose equipped with a shut-off nozzle is not permitted;
4. Any use of water from a fire hydrant except for fighting fires. Use for essential construction needs may be permitted by the Director upon submittal of a permit application for construction water;
5. Use of potable water for dust control at construction sites is not permitted;
6. Residential and commercial irrigation is not permitted except on specific days and times as set forth by Resolution of the City Council;
7. Other uses deemed to be non-essential by the City Council upon recommendation of the Director that such additional measures are necessary to achieve an overall system-wide reduction of up to 25 percent in Russian River water supply deliveries.

C. Stage 3. Mandatory compliance – severe water shortage. The City Council may by resolution declare a Stage 3 water shortage upon recommendation by the Director that the Board of Directors of the Sonoma County Water Agency has officially declared a 26 percent to 40 percent reduction in Russian River water supply delivery to the City or if Stage 2 reduction goals cannot be met without implementing Stage 3. In order to achieve an overall system-wide reduction goal of up to 40 percent of Russian River water supply deliveries, the following restrictions shall apply in addition to Stage 1 and Stage 2 restrictions as set forth in Sections 13.10.070(A) and 13.10.070(B):

1. Watering of athletic fields, turf areas in public and private parks unless water usage is no more than 75 percent of year 2006 for the same period of time; or if 2006 billing data unavailable or not appropriate for use, a different baseline year may be used as approved by the Director;
2. Non-commercial washing of vehicles is not permitted;
3. Other uses deemed to be non-essential by the City Council upon recommendation of the Director that such additional measures are necessary to achieve an overall system-wide reduction of up to 40 percent in Russian River water supply deliveries.

- D. Stage 4. Mandatory water rationing – critical water shortage. The City Council may by resolution declare a Stage 4 water shortage upon recommendation by the Director that the Board of Directors of the Sonoma County Water Agency has officially declared a reduction of greater than 40 percent in Russian River water supply delivery to the City or if Stage 3 reduction goals cannot be met without implementing Stage 4. In order to achieve an overall system-wide reduction goal of greater than 40 percent of Russian River water supply deliveries, water rationing will be implemented upon development of a systematic water rationing plan and subsequent acceptance of the plan by City Council. During Stage 4 water shortage, Stage 1, Stage 2 and Stage 3 restrictions as set forth in Sections 13.10.070(A), 13.10.070(B) and 13.10.070(C) shall apply.
1. A water rationing plan establishing water allotments for residential, commercial and institutional customers of the City shall be developed by the Director taking into consideration projections and estimates made by the Sonoma County Water Agency pertaining to the Russian River water supply and the City's local water supply. The water rationing plan shall include but not limited to the following analyses and evaluations:
 - a. Allocation amounts for the City's customers based on the amount of available water for the City's water service area and taking into consideration essential facilities and economic and fiscal impacts of the water supply reductions;
 - b. A Stage 4 water shortage rate structure for conservation "tiered" rates, drought surcharges, excess-use penalties and fees;
 - c. A systematic plan for temporary service interruptions to all or part of its water system, as may be deemed appropriate to further extend limited and/or dwindling water supplies;
 - d. A water billing plan that identifies the Finance Department's responsibilities for obtaining and monitoring customer data and water usage to effect the water rationing plan; and
 - e. A public outreach and notification plan for implementing temporary service interruptions and water rationing.
 2. No new water connections shall be permitted during a Stage 4 water shortage except as approved by the City Manager for public health and safety reasons.
 3. No new water agreements to serve water shall be entered into by the City during a Stage 4 water shortage.

13.10.080 Exceptions and application procedures for exceptions.

Any customer of the City may make written application for an exception. Said application shall describe in detail why applicant believes an exception is justified.

- A. The City Manager may grant exceptions for use of water otherwise prohibited by this section upon finding and determining that failure to do so would cause an emergency condition affecting the health, sanitation, fire protection or safety of the applicant or public; or, cause an unnecessary and undue hardship on applicant or the public, including but not limited to, adverse economic impacts, such as loss of production or jobs.
- B. The decision of the City Manager may be appealed to the City Council by submitting a written appeal to the City Clerk within fifteen (15) calendar days of the date of the decision. Upon granting any appeal, the City Council may impose any conditions it determines to be just and proper. Exceptions granted by the City Council shall be prepared in writing and the City Council may require the exception be recorded at applicant's expense.

13.10.090 Violation--Enforcement.

The violation of each provision of this chapter, and each separate violation thereof, shall be deemed a separate offense, and shall be enforced as an infraction punishable by a fine in the amount provided by chapter 1.12 General Penalty of the Code. The City may, after written notification to customer and a reasonable time to correct the violation as solely determined by the City, take some or all of the following actions. Fees and charges for the activities below shall be established by resolution of the City Council.

- A. Written notice to the customer of the water waste violation including a specified period of time to correct the violation.
- B. Personal contact with the customer at the address of the water service. If personal contact is unsuccessful, written notice of the violation including a date that the violation is to be corrected may be left on the premises, with a copy of the notice sent by certified mail to the customer.
- C. The City Council may authorize the installation of a flow-restricting device on the service line and require the property owner and/or resident to reimburse the City for its costs in installing the flow restricting device.
- D. The City Council may levy a water waste fee to the customer, said fee established by separate ordinance.
- E. After notice and a hearing provided in accordance with section 13.10.100 below, the City Council may authorize termination of water service, if said action is deemed by the City Attorney to be allowable under statutory requirements at the time, and the charge for same shall be billed to the customer. Except in cases of extreme emergency as solely determined by the City Manager, service shall not be reinstated until verified by the City Manager that the violation has been corrected and all charges and fees have been paid.

13.10.100 Notice and hearing.

Before the City either installs a water flow-restricting device or terminates water service, a hearing shall be scheduled before the City Council with notice provided to the property owner and the resident of the property of the time, date and place of the hearing. Such notice shall be provided at least ten days prior to the hearing date. At the hearing, the City Council shall hear testimony from all interested persons and shall make a determination as to whether a water flow-restricting device should be installed or water service terminated. If the City Council determines that a water-flow restricting device should be installed, the City Council shall establish a date by which the City will install such device and the City Council shall further require the property owner and/or resident to reimburse the City its costs in installing the flow-restricting device. If the property owner and/or resident does not pay these installation costs after being billed for such costs by the City, the City Manager may utilize the procedures contained in chapter 1.12 General Penalty of the Municipal Code to recoup the City's installation costs.

13.10.110 Violation--Additional remedy.

As an additional remedy, the violation of any provision of this chapter shall be deemed, and is declared to be, a public nuisance and may be abated in accordance with chapter 1.12 General Penalty of the Municipal Code.

SECTION 3. Repeal of Conflicting ordinances. All former ordinances or parts thereof conflicting or inconsistent with the provisions of this ordinance or of the Code hereby adopted are thereby repealed.

SECTION 4. Severability. If any section, subsection, sentence, clause, or phrase of this Ordinance is for any reason held invalid, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it should have adopted this ordinance and each section, subsection, sentence, clause, or phrase thereof irrespective of the fact that any one or more of sections, subsections, sentences, clauses or phrases be declared unconstitutional.

SECTION 5. Effective Date. This ordinance shall be in full force and effective 30 days after its adoption and shall be published and posted as required by law.

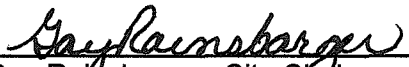
SECTION 6. Pursuant to Health and safety code section 21065, this ordinance is not a project subject to the California Environmental Quality act.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Sonoma this 4th day of March 2009.



Ken Brown, Mayor

ATTEST:

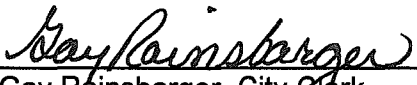


Gay Rainsbarger, City Clerk

State of California)
County of Sonoma)
City of Sonoma)

I, Gay Rainsbarger, City Clerk of the City of Sonoma, do hereby certify that the foregoing ordinance was adopted on March 4, 2009 by the following vote:

AYES: Sebastiani, Gallian, Barbose, Sanders, Brown
NOES: None
ABSENT: None



Gay Rainsbarger, City Clerk

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Base Year Data

[Link to FAQs](#)

Reporting Unit **Base Year**

What is your reporting period?

Base Year

BMP 1.3 **Metering**

Number of unmetered accounts in Base Year

BMP 3.1 & BMP 3.2 & BMP 3.3 **Residential Programs**

Number of Single Family Customers in Base Year

Number of Multi Family Units in Base Year

BMP 3.4 **WaterSense Specification (WSS) Toilets**

Number of Single Family Housing Units constructed prior to 1992

Number of Multi Family Units prior to 1992

Average number of toilets per single family household

Average number of toilets per multi family household

Five year average resale rate of single family households

Five-year average resale rate of multi family households

Average number of persons per single family household

Average number of persons per multi family household

BMP 4.0 & BMP 5.0 **CII & Landscape**

Total water use (in Acre Feet) by CII accounts

Number of accounts with dedicated irrigation meters

Number of CII accounts without meters or with Mixed Use Meters

Number of CII accounts

Comments:

The fields in red are required.

Agency name:

Primary contact:

First name:

Division name
(Reporting unit)

Last name:

Reporting unit number:

Email:



WATER SOURCES

2009

Service Area Population:

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
------------------------	---------	-------------------	--------------------------

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
-----------------------------	---------	-------------------	--------------------------

Exported Water Name	AF/YEAR	Where Exported?
---------------------	---------	-----------------

Customer Type	Meter Accounts	Metered Water Delivered	Un-metered Accounts	Un-metered Water Delivered	Description
---------------	----------------	-------------------------	---------------------	----------------------------	-------------

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

2009

BMP 1.1 Operations Practices

Comments:

[See the complete MOU:](#) [View MOU](#)

[See the coverage requirements for this BMP:](#)

Conservation Coordinator

Conservation Coordinator Yes No

Contact Information

First Name

Last Name

Title

Phone

Email

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

- Enact and enforce an ordinance or establish terms of service that prohibit water waste
- Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- Support legislation or regulations that prohibit water waste
- Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- Support local ordinances that prohibit water waste
- Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

- A description of, or electronic link to, any ordinances or terms of service
- A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
- description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.



File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Enter a description:

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)



2009 BMP 1.2 Water Loss Control

Did your agency complete a pre-screening system audit in 2009?

Yes

No

If yes, answer the following:

Determine metered sales in AF:

Definition: other accountable uses not included in metered sales, such as unbilled water use, fire suppression, etc.



Determine system verifiable uses AF:

Determine total supply into the system in AF:

Does your agency keep necessary data on file to verify the answers above?

Yes

No

Did your agency complete a full-scale system water audit during 2009?

Yes

No

Does your agency maintain in-house records of audit results or the completed AWWA worksheet for the completed audit which could be forwarded to CUWCC?

Yes

No

Did your agency operate a system leak detection program?

Yes

No

Comments:

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

2009

BMP 1.2 Water Loss Control

[View MOU](#)



AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software Yes No
Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

Water Audit Validity Score
from AWWA spreadsheet

Agency Completed Training In The AWWA Water Audit Method Yes No ?
Agency Completed Training In The Component Analysis Process Yes No ?

Completed/Updated the Component Analysis (at least every 4 years)? Yes No ?
Component Analysis Completed/Updated Date

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective Yes No

Recording Keeping Requirements:

Date/Time Leak Reported	Leak Location
Type of Leaking Pipe Segment or Fitting	Leak Running Time From Report to Repair
Leak Volume Estimate	Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective Yes No
Type of Program Activities Used to Detect Unreported Leaks

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of AppUFYbhLoss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)

Comments:

The fields in red are required.

Agency name:Reporting unit name (District name)Reporting unit number:

Primary contact:First name:Last name:Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



BMP 1.3 Metering with Commodity

[Link to FAQs](#)

See the complete MOU: [View MOU](#)

See the coverage requirements for this BMP:

Implementation

Does your agency have any unmetered service connections?

YesNo

If YES, has your agency completed a meter retrofit plan?

YesNo

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered?

YesNo

Are all new service connections being billed volumetrically?

YesNo

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters?

YesNo

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
--------------	--------------------	-------------------------	-------------------------------------	----------------------------	-------------------------

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

YesNo

If YES, please fill in the following information:

- A. When was the Feasiblity Study conducted
- B. Email or provide a link to the feasibility study (or description of):

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

General Comments about BMP 1.3:

The fields in red are required.

Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



2009

[Link to FAQs](#)

[View MOU](#)

BMP 1.4 Retail Conservation Pricing

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

Implementation Option (Conservation Pricing Option)

Use Annual Revenue As Reported
Use Canadian Water & Wastewater Association Rate
Design Model

If CWWA is select, enter the file name and email the spreadsheet to natalie@cuwcc.org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service

Yes No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

Comments:

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2009

BMP 2.1 Public Outreach - Retail Reporting

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year?

Number of Public Contacts		Public Information Programs	

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

OR Retail Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year?

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types	

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

Did at least one Website Update take place during each quarter of the reporting year? Yes No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments	

Comments:

The fields in red are required.



Agency name: Sonoma County Water Agency

Reporting unit name
(District name) Sonoma County Water Agency

Reporting unit number: 208

Primary contact:

First name: Carrie

Last name: Pollard

Email: carrie.pollard@scwa.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

BMP 2.1 Public Outreach

2009

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

☒ Yes ☐ No

Enter the name(s) of the retail agency
(comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park,
City of Cotati, City of Petaluma, North Marin Water District,
City of Sonoma, Valley of the Moon Water District

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during
each quarter of the reporting year?



Number of Public Contacts	Public Information Programs
1,325	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
11	Landscape water conservation media campaigns
19	General water conservation information
	Select a public contact
	Select a public contact

Contact with the Media

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

☒ Yes ☐ No

Enter the name(s) of the retail agency
(comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert
Park, City of Cotati, City of Petaluma, North Marin
Water District, City of Sonoma, Valley of the Moon
Water District

OR Wholesale Agency (Contacts with the Media)

Did at least one contact take place
during each quarter of the reporting
year?



Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
12		Articles or stories resulting from outreach
20		News releases
125		Newspaper contacts
13		Television contacts
10		Radio contacts
		Select a type of media contact

Is a Wholesale Agency Performing Website Updates?

Did one or more retail agencies rely on your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? ☒ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

www.sonomacountywater.org

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

- Water tips updated
- Save Our Water program link updated
- Campaign updated on conservation page
- Monthly water tips updated

Did at least one Website Update take place during each quarter of the reporting year? ☒ Yes ☐ No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or break the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount	Personnel Costs Included? <small>If yes, check the box.</small>	Comments
CII	\$85,000	<input checked="" type="checkbox"/>	Business Environmental Alliance
General	\$20,000	<input type="checkbox"/>	Sonoma County Fair
General	\$75,000	<input type="checkbox"/>	Summer Campaign
Landscape	\$15,000	<input type="checkbox"/>	Qualified Water Efficient Landscaper
Landscape	\$5,000	<input type="checkbox"/>	Bay Friendly Landscaping
		<input type="checkbox"/>	

Comments:

As a wholesaler we also do public outreach on behalf of our retailers. The flyers and/or brochures... are materials distributed at the Sonoma County Fair.

The fields in red are required.



Agency name: Sonoma County Water Agency

Reporting unit name
(District name)

Sonoma County Water Agency

Reporting unit number:

208

Primary contact:

First name: Carrie

Last name: Pollard

Email: carrie.pollard@scwa.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2009

BMP 2.2 School Education Programs

School Programs

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

☒ Yes ☐ No

Enter retailer names, separated by commas:

Cities of Santa Rosa, Petaluma, Rohnert Park, Sonoma, Cotati, the Town of Windsor and the North Marin and Valley of the Moon Water Districts.

☒ Materials meet state education framework requirements?

Description of Materials

Student Workbooks, Teacher Guides, Curriculum Guides, Supplemental Materials (Maps and Posters), Student Incentives (folders, pencils, pencil sharpeners, rulers, erasers, stickers, temporary tattoos)

☒ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Student Workbooks, Student Incentives(folders, pencils, pencil sharpeners, rulers, erasers, stickers, temporary tattoos)

Number of students reached

7,380

☒ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Student Workbooks, Incentives

Number of Distribution

5,264

Annual budget for school education program

Description of all other water supplier education programs

Assembly Program; Calendar Contest - elementary; Video Contest - high school; Lending Library (Books, Videos, Classroom Sets of Curriculum, watershed and groundwater models); Classroom Presentations; Field Trips; Creek Clean ups; Annual Newsletter for Teachers; Teacher Workshops

School Program Activities

Classroom presentations:

Number of presentations

218

Number of attendees

2,892

Large group assemblies:

Number of presentations

43

Number of attendees

10,661

Children's water festivals or other events:

Number of presentations

1

Number of attendees

300

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations

202

Number of attendees

4,598

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Lending Library Materials Water Awareness Calendar	
Description	
Number distributed	5,105
Staffing children's booths at events & festivals:	
Number of booths	7
Number of attendees	4,465
Water conservation contests such as poster and photo:	
Calendar Contest - grades 3-4 High School Video Contest	
Description	
Number distributed	779
Offer monetary awards/funding or scholarships to students:	
Number Offered	3
Total Funding	3,000
Teacher training workshops:	
Number of presentations	2
Number of attendees	22
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:	
Number of tours or field trips	65
Number of participants	1,719
College internships in water conservation offered:	
Number of internships	
Total funding	
Career fairs/workshops:	
Number of presentations	11
Number of attendees	425
Additional program(s) supported by agency but not mentioned above:	
Provide Education Component for SYEC - a summer jobs program which employed 330 youth.	
Description	
Number of events (if applicable)	9
Number of participants	330
Total reporting period budget expenditures for school education programs (include all agency costs):	
	\$588,083

Comments

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 3 Residential

Traditional (Sections A - D)

Flex Track (All Sections)

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data points also requested in form which are necessary to show that the measure was implemented as described.

A) Residential Assistance / Leak Detection

	Single Family	Multi Family	Total Water Savings AF/YR	Measured Water Savings AF/YR
Flex Track	Traditional		Total Number of Accounts	
			Total Number of Participants Overall	
			Total Number of Leak Det Surveys	
			Total Number of Showerheads	
			Total Number of Faucet Aerators	
			Total Number of Landscape Water Survey	
			Number of Other Components	
			Description of Other Components Distributed	
If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)				

B) High Efficiency Clothes Washers (HECWs)

Flex Track	Traditional	Number of incentives for HECWs with an AVERAGE Water Factor of 5.0		Measured water savings (AF/Year)
		Are Financial incentives provided for HECWs ?		
		Yes	No	
		Has your Agency completed a HECW Market Penetration Study (this question does not impact your coverage report, purely informational)		
		Yes	No	
HECW Market Penetration Study Documents (Enter the file name and Email file to Natalie@cuwcc.org)				

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

C) WaterSense Specification (WSS) Toilets

(Agency must complete information for at least one coverage option (For Traditional 1, 2, or 3; For Flex Tarck 1, 2, 3, or 4).
You are encouraged to include information on other coverage options, as available.
If seeking credit for additional water savings, you must select Flex Track option)

Traditional

1. Retrofiton Resale Ordinanceis in Place

Yes

No

If Yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)

2. A 75% Market Saturation Achieved

Yes

No

If yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)

3. WSS Toilets Installed

Single Family

Multi Family

Number of WSS Toilets Installed

Measured Water Savings AF/YR

Flex Track

4. Non-WSS Toilets

Single Family

Multi Family

Type of Toilets

Number of Toilets

Water Savings

Number of Toilets

Water Savings

Description of Other Non-WSS Type of Toilets

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

D) WSS for New Residential Development

(Agency must complete information for at least one coverage option.You are encouraged to include information on other coverageoptions, as available. If seeking credit for additional water savings you must select the Flex Track option)

Traditional

	Single Family		Multi Family	
Residential development Rebates	Yes	No	Yes	No
Recognition Programs	Yes	No	Yes	No
Reduced connection Fees	Yes	No	Yes	No
Ordinances	Yes	No	Yes	No

New Development Ordinance
(Enter the file name and Email file to Natalie@cuwcc.org)

Number of new Single Family Units built in Service Area

Number of new Multi Family Units built in Service Area

In the following table, enter one row for each incentive typr program you offer

List of Incentive Amount

Incentive Type	Incentive Amount	Number of WSS fixtures installed	Number of Participating		Measured Water Savings	
			Single Family	Multi Family	Single Family	Multi Family

Flex Track

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

For Traditional Option, Stop Here, do not go further.
For Flex Track Option, please continue...

Flex Track Menu Options

In addition to the measures on the BMP List, the Flex Track menu options may be implemented to meet the savings goal for this BMP. Fill in the water savings measures that your agency has implemented.

E) High bill contact with single-family and multi-family customers

**Measured
water savings
(AF/Year)**

Select the Types of Contact:

Email

Phone

Letter

Others (describe)

Upload sample of contact contents (email, letter, etc.)

– if applicable; enter the file name and email file to Natalie@cuwcc.org

Who initiated the contact:

(Please Specify customer, agencies, or both)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

F) Educate residential customers about the behavioral aspects of water conservation

**Measured
water savings
(AF/Year)**

**Select types of educational
methods used:**

Events

Customers Reached

Workshop

Community Event

Letter

On-Site Visit

Phone Call

Water Survey

Website Hit

Door Hanger

Other (Describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

G) Notify residential customers of leaks on the customer's side of the meter

**Measured
water savings
(AF/Year)**

Type of Notification (Describe)

How many were sent out?

Upload sample notification method(email, letter, etc.) – if applicable

(Enter the file name and Email file to Natalie@cuwcc.org)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

H) Provide bill or surcharge refunds for customers to repair leaks on the customer's side of the meter.

**A YUj fYX
k UHYf'gUj]b[g
fB: #WUfL**

Number of Leaks Repaired

Number of bill adjustments/credits/refunds provided

Describe here or upload a document with a policy description below:

Upload file describing Policy (Enter the file name and Email file to Natalie@cuwcc.org)

If you are using your own water-savings measure, send your supporting spreadsheet

Enter the file name and Email to Natalie@cuwcc.org

I) Provide unique water savings fixtures that are not included in the BMP list above

Fixture or Device

Description

Quantity Installes

Measured water
savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

J) Install residence water use monitors.

Type of Monitor	6 fUbX	Number Installed	Measured water savings (AF/Year)
Dashboard			
Leak Detector			
Data Logger			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

K) Participate in programs that provide residences with school water conservation kits.

Number of Kits Distributed		
Kit contents (including model of fixtures)		
List of what was actually installed in the homes (number of showerheads, aerators etc.).		Measured water savings (AF/Year)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

L) Implement an automatic meter reading program for residential customers.

AMR or AMI	Type of Network	
Number of connections installed		Measured water savings (AF/Year)
Is your agency using these to contact high water-use customers?		

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

OTHER Types of Measures.

Type of Program

Sample / Description

Measured Water Savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Comments

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

2009

[Link to FAQs](#)

[View MOU](#)

BMP 4 CII

Traditional
(Section A - L)

Flex Track
(All Sections)

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually in the summary cells on the right. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings was measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data points also requested in the flex track data entry form which are necessary to show that the measure was implemented as described.

CII Type of measure implemented

	Traditional	Flex Track	Measured water savings (AF/Year)
Traditional	A) High - Efficiency Toilets.		
	Number		
	Type of program	Select an Option	
	Other type of program		
	Do you accept the Council's default savings number for this measure?		
	Yes No		
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
	Measure life (years)		
	Lifetime water savings (years)		
Flex Track	If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org		
			Council's Annual Water Savings 0.041748 AF per device

B) High - Efficiency Urinals (0.5 gpf)

Flex Track	Traditional	Number	Measured water savings (AF/Year)
		Type of program	
		Other type of program	
		Do you accept the Council's default savings number for this measure?	Yes No
		If not, Please provide the following	
		Total Measured Water Savings(AF/Year)	
		Measure life (years)	
		Lifetime water savings (years)	
		If you are using your own water-savings measure, send your supporting spreadsheet	
		Enter the file name and Email to Natalie@cuwcc.org	
		Council's Annual Water Savings 0.069086 AF per device	

C) Ultra Low Volume Urinals (0.125 gpf)

Flex Track	Traditional	Number	Measured water savings (AF/Year)
		Type of program	
		Other type of program	
		Do you accept the Council's default savings number for this measure?	Yes No
		If not, Please provide the following	
		Total Measured Water Savings(AF/Year)	
		Measure life (years)	
		Lifetime water savings (years)	
		If you are using your own water-savings measure, send your supporting spreadsheet	
		Enter the file name and Email to Natalie@cuwcc.org	
		Council's Annual Water Savings 0.080603 AF per device	

D) Zero Consumption Urinals (0.0 gpf)

Flex Track	Traditional	Number	Measured water savings (AF/Year)
		Type of program	
		Other type of program	
		Do you accept the Council's default savings number for this measure?	Yes No

Flex Track

If not, Please provide the following:
Total Measured Water Savings(AF/Year)
Measure life (years)
Lifetime water savings (years)
If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water
Savings 0.0921146
AF per device

E) Commercial High - Efficiency Single Load Clothes Washers

Traditional

Number
Type of program
Other type of
program

**Measured
water savings
(AF/Year)**

Flex Track

Do you accept the Council's
default savings number for Yes No
this measure ?
If not , Please provide the following:
Total Measured Water Savings(AF/Year)
Measure life (years)
Lifetime water savings (years)
If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water
Savings 0.116618
AF per device

F) Cooling Tower Conductivity Controllers.

Traditional

Number
Type of program
Other type of
program

**Measured
water savings
(AF/Year)**

Flex Track

Do you accept the Council's
default savings number for Yes No
this measure ?
If not, Please provide the following:
Total Measured Water Savings(AF/Year)
Measure life (years)
Lifetime water savings (years)
If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water
Savings 1.032250
AF per device

G) Cooling Tower pH Controllers

	Traditional	Measured water savings (AF/Year)
	<div>Number</div> <div>Type of program</div> <div>Other type of program</div>	
Flex Track	<div>Do you accept the Council's default savings number for this measure ?</div> <div>Yes No</div> <div>If not, Please provide the following:</div> <div>Total Measured Water Savings(AF/Year)</div> <div>Measure life (years)</div> <div>Lifetime water savings (years)</div> <div>If you are using your own water-savings measure, send your supporting spreadsheet</div> <div>Enter the file name and Email to Natalie@cuwcc.org</div>	<div>Council's Annual Water Savings 3.981543 AF per device</div>

H) Connectionless Food Steamers.

	Traditional	Measured water savings (AF/Year)
	<div>Number</div> <div>Type of program <div>Select an Option</div></div> <div>Other type of program</div>	
Flex Track	<div>Do you accept the Council's default savings number for this measure ?</div> <div>Yes No</div> <div>mIf not, Please provide the following:</div> <div>Total Measured Water Savings(AF/Year)</div> <div>Measure life (years)</div> <div>Lifetime water savings (years)</div> <div>If you are using your own water-savings measure, send your supporting spreadsheet</div> <div>Enter the file name and Email to Natalie@cuwcc.org</div>	<div>Council's Annual Water Savings 0.25 AF per Steamer Compartment</div>

I) Medical Equipment Steam Sterilizers

	Traditional	Measured water savings (AF/Year)
Flex Track	<div>Number</div> <div>Type of program <div>Select an Option</div></div> <div>Other type of program</div>	

Flex Track

Do you accept the Council's default savings number for this measure?

YesNo

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet

Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 1.538

AF per device

J) Water - Efficient Ice Machines.

Traditional

Number

Type of programSelect an Option

Other type of program

Flex Track

Do you accept the Council's default savings number for this measure ?

YesNo

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet

Enter the file name and Email to Natalie@cuwcc.org

Measured water savings (AF/Year)

Council's Annual Water Savings 0.0834507

AF per device

K) Pressurized Water Brooms.

Traditional

Number

Type of programSelect an Option

Other type of program

Flex Track

Do you accept the Council's default savings number for this measure?

YesNo

Council's Annual Water Savings 0.1534

AF per device

Measured water savings (AF/Year)

Flex Track

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

L) Dry Vacuum Pumps.

Traditional

Number

Type of program Select an Option

Other type of
program

**Measured
water savings
(AF/Year)**

Flex Track

Do you accept the Council's
default savings number for
this measure ? Yes No

If not, Please provide the following:

Council's Annual Water
Savings 0.064
AF per device

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Traditional Reporting Stop Here, Do not continue



Flex Track Reporting Please Continue...

M) Industrial Process Water Use Reduction.

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Type of Process
Water Reduced

If re-using water,
what was the secondary
use of the water?
(such as pre-rinse
cycle or landscaping)

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

N) Commercial Laundry Retrofits.

Number of customers				Measured water savings (AF/Year)
Type of customer	hotels campuses prisons laundromats			
Lease / own machines	Lease	Own Machines	Both	
Type of program	Select an Option			
Other type of program				

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

O) Industrial Laundry Retrofits.

Total Number of customers				Measured water savings (AF/Year)
Total Volume of laundry processed annually	Select an Option			
Type of program	Select an Option			

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

P) Filter Upgrades (for pools, spas, and fountains).

Number of pools
upgraded

Number of spas
upgraded

Number of
fountains
upgraded

Type of program Select an Option

Other type of
program

**Measured
water savings
(AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Q) Car Wash Reclamation Systems

**Measured
water savings
(AF/Year)**

	Conveyor	In-bay
Total Number of program participants (accounts)		
Total Number of vehicles washed annually		
Do you accept the Council's default savings number for this measure?	Yes No	
If not, Please provide the following:		
Total Measured Water Savings(AF/Year)		
Measure life (years)		
Lifetime water savings (years)		
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org		

Council's Annual Water Savings 0.00004607 (or 15 gals) per vehicle
--

R) Wet Cleaning.

Brief description of program	Measured water savings (AF/Year)
Total Measured Water Savings(AF/Year)	
Measure life (years)	
Lifetime water savings (years)	
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	

S) Water Audits (To avoid double counting, do not include device/replacement water savings.)

Number of water audits by type of business	Measured water savings (AF/Year)
Auto	
Food	
Health	
Hotels	

Manufacturing
Membership
Multi-use
Office
Religious
Restaurant
Retail/
Wholesale
School
Other (with
description)
Description of
Other

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

T) Clean In Place (CIP) Technology
(such as bottle sterilization in a beverage processing plant)

**Measured
water savings
(AF/Year)**

Number of
customers
Type of program
Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

U) Waterless Wok

Number	Measured water savings (AF/Year)
Type of program	
Total Measured Water Savings(AF/Year)	
Measure life (years)	
Lifetime water savings (years)	
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	

V) Alternative On-site Water Sources
(For Rain Water Harvesting, commercial
rain barrels are excluded. For Foundation Drain
Water, exclude permeable paving.)

**Measured
water savings
(AF/Year)**

Select type	Number	Description
Cooling Condensate		
Foundation Drain Water		
Gray Water		
Storm Water		
Rain Water		
Pond and Water Feature Recycling		

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

W) Sub - metering		Measured water savings (AF/Year)
Select type	Number	Description
Condominiums		
Apartments		
Mobile Homes		
Do you accept the Council's default savings numbers for this measure?		Yes No
If not, Please provide the following:		Council's Annual Water Savings Appartments & Condos=0.024419 AF/YR Mobile Home = 0.056774 AF/Yr
Total Measured Water Savings(AF/Year)		
Measure life (years)		
Lifetime water savings (years)		
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org		

X) High Efficiency Showerheads	Measured water savings (AF/Year)
Number	
Type of program	
Other type of program	

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Y) Faucet Flow Restrictors

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Z) Water Efficient Dishwashers

**Measured
water savings
(AF/Year)**

Select type	Number
Rack	
Conveyor	
Other	
Description of Other	
Type of program	Select an Option

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

AA) Hot Water on Demand

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

BB) Pre-rinse Spray Valves of 1.3 gpm (gallons per minute) or less

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

CC) Central Flush Systems

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Other Measures chosen by the Agency

**Measured
water savings
(AF/Year)**

Description of
program

Sample (if
applicable)

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org



The fields in red are required.

Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

2009

BMP 5 Landscape

[Link to FAQs](#)

[View MOU](#)

Traditional

Flex Track

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data point also requested in form which are necessary to show that the measure was implemented as described.

Accounts with Dedicated Irrigation Meters

Traditional

Number of dedicated irrigation meter accounts

Number of dedicated irrigation meter accounts
with water budgets

Aggregate water use for dedicated non-recreational
landscape accounts with budgets

Aggregate acreage assigned water budgets for dedicated
non-recreational landscape accounts with budgets

Preserved water use records and budgets for
customers with dedicated landscape
irrigation accounts for at least four years

Yes No

Flex Track

Water Savings from Accounts with dedicated irrigation
meters with water budgets (Acre Feet)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Technical Assistance

Traditional

Number of Accounts 20% over-budget

Number of accounts 20% over-budget
offered technical assistance

Number of accounts 20% over-budget
accepting technical assistance

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Flex Track

**Measured
water savings
(AF/Year)**

Irrigation Water Use Surveys for Mixed-use and Un-metered Accounts

Traditional	Number of mixed use and un-metered accounts		Measured water savings (AF/Year)
	Number of irrigation water use surveys offered (cumulative, all years)		
Flex Track	Number of irrigation water use surveys accepted (cumulative)		
	Can your Agency estimate the amount of landscape acreage for mixed use and Un-metered accounts		
	Yes	No	
	If Yes, Aggregate acreage for mixed use and Un-metered accounts		
Flex Track	Esrimated water demand from acreage for mixed use and Un-metered accounts		
	Annual water savings by customers receiving irrigation water savings surveys and implementing recomendations		
	If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)		

Financial Incentives

Traditional	Have you implemented and maintained an irrigation equipment retrofit incentive program?		Measured Water Savings (AF/YR)
	Yes	No	
Flex Track	Number of incentives	Dollar value of incentives	Incentive Types
Flex Track	If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)		

Traditional Reporting Stop Here, Do not continue
Flex Track Reporing Please Continue...

Landscape Flex Track Measure Types

1. Monitor and report on landscape water use

- A) Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules (such as faxes, twitter, etc. not included in the previous sections).**

Measured water savings (AF/Year)

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

- B) Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.**

Measured water savings (AF/Year)

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

- C) Establish agency-wide water budget. (Note that: ETo based water budget in the MWELO changed in 2010 from .8ETo to .7ETo.)**

Agency-wide total irrigated area

(Acres)

Measured water savings (AF/Year)

Amount of Water Used

(AF/Acre)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

D) Establish agency-wide, sector-based irrigation goal to reduce water use, based on seasonality.

Number of minimum irrigation goal	(AF/Acre)	Measured water savings (AF/Year)
Amount of Water Used per Period	(AF/Period)	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

2. Provide technical landscape resources and training

A) Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.

Enter the Number of:	Measured water savings (AF/Year)
Contacts In Person	
Contacts over the phone	
Contacts via Email	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

B) Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.

Enter the Number of:	Measured water savings (AF/Year)
Audits conducted per year	
Measurement of square footage of Turf areas	
Measurement of square footage of NON Turf areas	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.

Enter the Number of:	Measured water savings (AF/Year)
Events	
Participants	
List Type or Title of Events	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

D) Establish Time-of-Day Irrigation Restrictions.

	Yes	No	Measured water savings (AF/Year)
Describe Restrictions:			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

E) Establish Day-of-Week Irrigation Restrictions.

	Yes	No	Measured water savings (AF/Year)
Describe Restrictions:			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

3. Provide incentives

A) Establish Landscape budget-based rates.

YesNo

Describe Rates:

Measured
water savings
(AF/Year)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

B) Provide incentives for conversions from mixed-use meters to dedicated landscape meters.

Measured
water savings
(AF/Year)

Number of Conversions:

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Provide incentives for installing sub-meters to separate landscape water use

Number of meters installed:

AYUgj fYX
k UHYf'gUJ]b[g
fE: #WUfL

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

D) Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.

Select types of irrigation
equipment upgrades:

Number of devices
installed

Measured
water savings
(AF/Year)

Controllers

Emitters

Soil moisture sensors

Pressure Regulators

Rain shut off devices

Other (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

E) Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.

Acreage of live turf converted to low water-using plants, artificial turf, or permeable surfaces:	Acres	Measured water savings (AF/Year)
---	-------	---

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

F) Provide incentives for conversions from potable to recycled water.

Number of Conversions:	Measured water savings (AF/Year)
Number of Incentives:	
Funds Invested:	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

G) Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)

Number of Conversions:	Measured water savings (AF/Year)
Number of Incentives:	
Funds Invested:	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

4. Participate in local and regional planning and regulatory activities

A) Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

				Measured water savings (AF/Year)
Public Information Programs List				
Agency Type	Describe Involvement	If Ohter: Enter Name		Actions

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)

B) Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

Yes No

Describe Involvement:

Measured
water savings
(AF/Year)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.

Yes No

**Measured
water savings
(AF/Year)**

Describe Involvement:

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

5. Develop a holistic approach to landscape water use efficiency

A) Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.

Describe Program:

**Measured
water savings
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

6. Other Measures

A) Other Landscape Measures.

Describe Other
Landscape Measures:

**Measured
water savings
(Af/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file Natalie@cuwcc.org)

The fields in red are required.

Agency name:

Primary contact:

First name:

Division name
(Reporting unit)

Last name:

Reporting unit number:

Email:



WATER SOURCES

2010

Service Area Population:

Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
------------------------	---------	-------------------	--------------------------

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
-----------------------------	---------	-------------------	--------------------------

AF/YEAR

Exported Water Name	AF/YEAR	Where Exported?
---------------------	---------	-----------------

Customer Type	Meter Accounts	Metered Water Delivered	Un-metered Accounts	Un-metered Water Delivered	Description
---------------	----------------	-------------------------	---------------------	----------------------------	-------------

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[See the complete MOU:](#)

[View MOU](#)

[See the coverage requirements for this BMP:](#)



Conservation Coordinator

Conservation Coordinator Yes No

Contact Information

First Name

Last Name

Title

Phone

Email

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

- Enact and enforce an ordinance or establish terms of service that prohibit water waste
- Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- Support legislation or regulations that prohibit water waste
- Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- Support local ordinances that prohibit water waste
- Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

- A description of, or electronic link to, any ordinances or terms of service
- A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
- description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.



File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Enter a description:

2010

BMP 1.1 Operations Practices

Comments:

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

2010

BMP 1.2 Water Loss Control

[View MOU](#)



AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software Yes No
Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

Water Audit Validity Score
from AWWA spreadsheet



Agency Completed Training In The AWWA Water Audit Method
Agency Completed Training In The Component Analysis Process

Yes

No



Yes

No

Completed/Updated the Component Analysis (at least every 4 years)?

Yes

No



Component Analysis Completed/Updated Date

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective Yes No

Recording Keeping Requirements:

Date/Time Leak Reported

Leak Location

Type of Leaking Pipe Segment or Fitting

Leak Running Time From Report to Repair

Leak Volume Estimate

Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective Yes No

Type of Program Activities Used to Detect Unreported Leaks

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of AppUYbhlLoss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)
----------------------------	-----------------------------------	--------------------------------------	---	--	--------------------------	-----------------------------

Comments:

The fields in red are required.

Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



BMP 1.3 Metering with Commodity

[Link to FAQs](#)

See the complete MOU: [View MOU](#)

See the coverage requirements for this BMP:

Implementation

Does your agency have any unmetered service connections?	Yes	No
If YES, has your agency completed a meter retrofit plan?	Yes	No
Enter the number of previously unmetered accounts fitted with meters during reporting year:		
Are all new service connections being metered?	Yes	No
Are all new service connections being billed volumetrically?	Yes	No
Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters?	Yes	No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
--------------	--------------------	-------------------------	-------------------------------------	----------------------------	-------------------------

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	Yes	No
---	-----	----

If YES, please fill in the following information:

A. When was the Feasiblity Study conducted

B. Email or provide a link to the feasibility study (or description of):

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

General Comments about BMP 1.3:

The fields in red are required.

Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



2010

[Link to FAQs](#)

[View MOU](#)

BMP 1.4 Retail Conservation Pricing

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

Implementation Option (Conservation Pricing Option)

Use Annual Revenue As Reported
Use Canadian Water & Wastewater Association Rate Design Model

If CWWA is select, enter the file name and email the spreadsheet to natalie@cuwcc.org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service

Yes No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

Comments:

The fields in red are required.

Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.



[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.1 Public Outreach - Retail Reporting

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year?

Number of Public Contacts		Public Information Programs	

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

OR Retail Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year?

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types	

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

Did at least one Website Update take place during each quarter of the reporting year? Yes No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or brake the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments	

Comments:

The fields in red are required.



Agency name: Sonoma County Water Agency

Reporting unit name

(District name) Sonoma County Water Agency

Reporting unit number: 208

Primary contact:

First name: Carrie

Last name: Pollard

Email: carrie.pollard@scwa.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.1 Public Outreach

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

☒ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year? ☒

Number of Public Contacts	Public Information Programs
1,325	Newsletter articles on conservation
11	Newsletter articles on conservation
19	General water conservation information
	Select a public contact
	Select a public contact

Contact with the Media

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

☐ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

OR Wholesale Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year? ☒

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
12		Articles or stories resulting from outreach
20		News releases
125		Newspaper contacts
13		Television contacts
10		Radio contacts
		Select a type of media contact

Is a Wholesale Agency Performing Website Updates?

Did one or more retail agencies rely on your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? ☐ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

www.sonomacountywater.org

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

- Water tips updated
- Save Our Water program link updated
- Campaign updated on conservation page
- Monthly water tips updated

Did at least one Website Update take place during each quarter of the reporting year? ☐ Yes ☐ No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or break the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount	Personnel Costs Included? <small>If yes, check the box.</small>	Comments
CII	\$85,000	<input checked="" type="checkbox"/>	Business Environmental Alliance
General	\$20,000	<input type="checkbox"/>	Sonoma County Fair
General	\$75,000	<input type="checkbox"/>	Summer Campaign
Landscape	\$15,000	<input type="checkbox"/>	Qualified Water Efficient Landscaper
Landscape	\$5,000	<input type="checkbox"/>	Bay Friendly Landscaping
		<input type="checkbox"/>	

Comments:

As a wholesaler we also do public outreach on behalf of our retailers. The flyers and/or brochures... are materials distributed at the Sonoma County Fair.

The fields in red are required.



Agency name: Sonoma County Water Agency

Reporting unit name

(District name) Sonoma County Water Agency

Reporting unit number:

208

Primary contact:

First name: Carrie

Last name: Pollard

Email: carrie.pollard@scwa.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.2 School Education Programs

School Programs

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

☒ Yes ☐ No

Enter retailer names, separated by commas:

Cities of Santa Rosa, Petaluma, Rohnert Park, Sonoma, Cotati, the Town of Windsor and the North Marin and Valley of the Moon Water Districts.

☒ Materials meet state education framework requirements?

Description of Materials

Student Workbooks, Teacher Guides, Curriculum Guides, Supplemental Materials (Maps and Posters), Student Incentives (folders, pencils, pencil sharpeners, rulers, erasers, stickers, temporary tattoos)

☒ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Student Workbooks, Student Incentives(folders, pencils, pencil sharpeners, rulers, erasers, stickers, temporary tattoos)

Number of students reached

7,380

☒ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Student Workbooks, Incentives

Number of Distribution

5,264

Annual budget for school education program

Description of all other water supplier education programs

Assembly Program; Calendar Contest - elementary; Video Contest - high school; Lending Library (Books, Videos, Classroom Sets of Curriculum, watershed and groundwater models); Classroom Presentations; Field Trips; Creek Clean ups; Annual Newsletter for Teachers; Teacher Workshops

School Program Activities

Classroom presentations:

Number of presentations

218

Number of attendees

2,892

Large group assemblies:

Number of presentations

43

Number of attendees

10,661

Children's water festivals or other events:

Number of presentations

1

Number of attendees

300

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations

202

Number of attendees

4,598

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description		Lending Library Materials Water Awareness Calendar	
Number distributed	5,105		
Staffing children's booths at events & festivals:			
Number of booths	7	Number of attendees	4,465
Water conservation contests such as poster and photo:			
Description		Calendar Contest - grades 3-4 High School Video Contest	
Number distributed	779		
Offer monetary awards/funding or scholarships to students:			
Number Offered	3	Total Funding	3,000
Teacher training workshops:			
Number of presentations	2	Number of attendees	22
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:			
Number of tours or field trips	65	Number of participants	1,719
College internships in water conservation offered:			
Number of internships		Total funding	
Career fairs/workshops:			
Number of presentations	11	Number of attendees	425
Additional program(s) supported by agency but not mentioned above:			
Description		Provide Education Component for SYEC - a summer jobs program which employed 330 youth.	
Number of events (if applicable)	9	Number of participants	330
Total reporting period budget expenditures for school education programs (include all agency costs):		\$588,083	

Comments

The fields in red are required.



Agency name: Sonoma County Water Agency

Reporting unit name

(District name) Sonoma County Water Agency

Reporting unit number:

208

Primary contact:

First name

Carrie

Last name

Pollard

Email:

carrie.pollard@scwa.ca.gov

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.1 Public Outreach

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

☒ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

Did at least one contact take place during each quarter of the reporting year?



Number of Public Contacts	Public Information Programs
1,325	Newsletter articles on conservation
11	Newsletter articles on conservation
19	General water conservation information
	Select a public contact
	Select a public contact

Contact with the Media

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

☒ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

OR Wholesale Agency (Contacts with the Media)

Did at least one contact take place during each quarter of the reporting year?



Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
12		Articles or stories resulting from outreach
20		News releases
125		Newspaper contacts
13		Television contacts
10		Radio contacts
		Select a type of media contact

Is a Wholesale Agency Performing Website Updates?

Did one or more retail agencies rely on your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? ☐ Yes ☐ No

Enter the name(s) of the retail agency (comma delimited)

Town of Windsor, City of Santa Rosa, City of Rohnert Park, City of Cotati, City of Petaluma, North Marin Water District, City of Sonoma, Valley of the Moon Water District

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

www.sonomacountywater.org

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

- Water tips updated
- Save Our Water program link updated
- Campaign updated on conservation page
- Monthly water tips updated

Did at least one Website Update take place during each quarter of the reporting year? ☐ Yes ☐ No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or break the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount	Personnel Costs Included? <small>If yes, check the box.</small>	Comments
CII	\$85,000	<input checked="" type="checkbox"/>	Business Environmental Alliance
General	\$20,000	<input type="checkbox"/>	Sonoma County Fair
General	\$75,000	<input type="checkbox"/>	Summer Campaign
Landscape	\$15,000	<input type="checkbox"/>	Qualified Water Efficient Landscaper
Landscape	\$5,000	<input type="checkbox"/>	Bay Friendly Landscaping
		<input type="checkbox"/>	

Comments:

As a wholesaler we also do public outreach on behalf of our retailers. The flyers and/or brochures... are materials distributed at the Sonoma County Fair.

The fields in red are required.



Agency name:

Reporting unit name

(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.2 School Education Programs

School Programs

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

☒ Yes ☐ No

Enter retailer names, separated by commas:

Cities of Santa Rosa, Petaluma, Rohnert Park, Sonoma, Cotati, the Town of Windsor and the North Marin and Valley of the Moon Water Districts.

☒ Materials meet state education framework requirements?

Description of Materials

Student Workbooks, Teacher Guides, Curriculum Guides, Supplemental Materials (Maps and Posters), Student Incentives (folders, pencils, pencil sharpeners, rulers, erasers, stickers, temporary tattoos)

☒ Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Student Workbooks, Student Incentives (folders, pencils, pencil sharpeners, rulers, erasers, stickers, temporary tattoos)

Number of students reached

7,380

☒ Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Student Workbooks, Incentives

Number of Distribution

5,264

Annual budget for school education program

Description of all other water supplier education programs

Assembly Program; Calendar Contest - elementary; Video Contest - high school; Lending Library (Books, Videos, Classroom Sets of Curriculum, watershed and groundwater models); Classroom Presentations; Field Trips; Creek Clean ups; Annual Newsletter for Teachers; Teacher Workshops

School Program Activities

Classroom presentations:

Number of presentations

218

Number of attendees

2,892

Large group assemblies:

Number of presentations

43

Number of attendees

10,661

Children's water festivals or other events:

Number of presentations

1

Number of attendees

300

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations

202

Number of attendees

4,598

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description	Lending Library Materials Water Awareness Calendar	
Number distributed	5,105	
Staffing children's booths at events & festivals:		
Number of booths	7	Number of attendees 4,465
Water conservation contests such as poster and photo:		
Description	Calendar Contest - grades 3-4 High School Video Contest	
Number distributed	779	
Offer monetary awards/funding or scholarships to students:		
Number Offered	3	Total Funding 3,000
Teacher training workshops:		
Number of presentations	2	Number of attendees 22
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:		
Number of tours or field trips	65	Number of participants 1,719
College internships in water conservation offered:		
Number of internships		Total funding
Career fairs/workshops:		
Number of presentations	11	Number of attendees 425
Additional program(s) supported by agency but not mentioned above:		
Description	Provide Education Component for SYEC - a summer jobs program which employed 330 youth.	
Number of events (if applicable)	9	Number of participants 330
Total reporting period budget expenditures for school education programs (include all agency costs):		\$588,083

Comments

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 3 Residential

Traditional (Sections A - D)

Flex Track (All Sections)

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data points also requested in form which are necessary to show that the measure was implemented as described.

A) Residential Assistance / Leak Detection

	Single Family	Multi Family	Total Water Savings AF/YR	Measured Water Savings AF/YR
Traditional	Total Number of Accounts			
	Total Number of Participants Overall			
	Total Number of Leak Det Surveys			
	Total Number of Showerheads			
	Total Number of Faucet Aerators			
	Total Number of Landscape Water Survey			
	Number of Other Components			
	Description of Other Components Distributed			
Flex Track	If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)			

B) High Efficiency Clothes Washers (HECWs)

Traditional	Number of incentives for HECWs with an AVERAGE Water Factor of 5.0			Measured water savings (AF/Year)
	Are Financial incentives provided for HECWs ?		Yes No	
	Has your Agency completed a HECW Market Penetration Study (this question does not impact your coverage report, purely informational)		Yes No	
	HECW Market Penetration Study Documents (Enter the file name and Email file to Natalie@cuwcc.org)			
Flex Track				

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

C) WaterSense Specification (WSS) Toilets

(Agency must complete information for at least one coverage option (For Traditional 1, 2, or 3; For Flex Tarck 1, 2, 3, or 4).
You are encouraged to include information on other coverage options, as available.
If seeking credit for additional water savings, you must select Flex Track option)

Traditional

1. Retrofiton Resale Ordinanceis in Place

Yes

No

If Yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)

2. A 75% Market Saturation Achieved

Yes

No

If yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)

3. WSS Toilets Installed

Single Family

Multi Family

Number of WSS Toilets Installed

Measured Water Savings AF/YR

Flex Track

4. Non-WSS Toilets

Single Family

Multi Family

Type of Toilets

Number of Toilets

Water Savings

Number of Toilets

Water Savings

Description of Other Non-WSS Type of Toilets

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

D) WSS for New Residential Development

(Agency must complete information for at least one coverage option.You are encouraged to include information on other coverageoptions, as available. If seeking credit for additional water savings you must select the Flex Track option)

Traditional

	Single Family		Multi Family	
Residential development Rebates	Yes	No	Yes	No
Recognition Programs	Yes	No	Yes	No
Reduced connection Fees	Yes	No	Yes	No
Ordinances	Yes	No	Yes	No

New Development Ordinance
(Enter the file name and Email file to Natalie@cuwcc.org)

Number of new Single Family Units built in Service Area

Number of new Multi Family Units built in Service Area

In the following table, enter one row for each incentive typr program you offer

List of Incentive Amount

Incentive Type	Incentive Amount	Number of WSS fixtures installed	Number of Participating		Measured Water Savings	
			Single Family	Multi Family	Single Family	Multi Family

Flex Track

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

For Traditional Option, Stop Here, do not go further.

For Flex Track Option, please continue...

Flex Track Menu Options

In addition to the measures on the BMP List, the Flex Track menu options may be implemented to meet the savings goal for this BMP. Fill in the water savings measures that your agency has implemented.

**E) High bill contact with single-family
and multi-family customers**

**Measured
water savings
(AF/Year)**

Select the Types of Contact:

Email

Phone

Letter

Others (describe)

Upload sample of contact contents (email, letter, etc.)

– if applicable; enter the file name and email file to Natalie@cuwcc.org

Who initiated the contact:

(Please Specify customer, agencies, or both)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

**F) Educate residential customers about the
behavioral aspects of water conservation**

**Measured
water savings
(AF/Year)**

**Select types of educational
methods used:**

Events

Customers Reached

Workshop

Community Event

Letter

On-Site Visit

Phone Call

Water Survey

Website Hit

Door Hanger

Other (Describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

**G) Notify residential customers of leaks on the
customer's side of the meter**

**Measured
water savings
(AF/Year)**

Type of Notification (Describe)

How many were sent out?

Upload sample notification method(email, letter, etc.) – if applicable

(Enter the file name and Email file to Natalie@cuwcc.org)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

H) Provide bill or surcharge refunds for customers to repair leaks on the customer's side of the meter.

**A YUj fYX
k UHYf'gUj]b[g
fB: #WUfL**

Number of Leaks Repaired

Number of bill adjustments/credits/refunds provided

Describe here or upload a document with a policy description below:

Upload file describing Policy (Enter the file name and Email file to Natalie@cuwcc.org)

If you are using your own water-savings measure, send your supporting spreadsheet

Enter the file name and Email to Natalie@cuwcc.org

I) Provide unique water savings fixtures that are not included in the BMP list above

Fixture or Device

Description

Quantity Installes

Measured water
savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

J) Install residence water use monitors.

Type of Monitor	6 fUbX	Number Installed	Measured water savings (AF/Year)
Dashboard			
Leak Detector			
Data Logger			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

K) Participate in programs that provide residences with school water conservation kits.

Number of Kits Distributed		
Kit contents (including model of fixtures)		
List of what was actually installed in the homes (number of showerheads, aerators etc.).		Measured water savings (AF/Year)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

L) Implement an automatic meter reading program for residential customers.

AMR or AMI	Type of Network	
Number of connections installed		Measured water savings (AF/Year)
Is your agency using these to contact high water-use customers?		

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

OTHER Types of Measures.

Type of Program

Sample / Description

Measured Water Savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Comments

The fields in red are required.



Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

2010

[Link to FAQs](#)

[View MOU](#)

BMP 4 CII

Traditional
(Section A - L)

Flex Track
(All Sections)

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually in the summary cells on the right. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings was measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data points also requested in the flex track data entry form which are necessary to show that the measure was implemented as described.

CII Type of measure implemented

	Traditional	Flex Track	Measured water savings (AF/Year)
Traditional	A) High - Efficiency Toilets.		
	Number		
Flex Track	Type of program		Select an Option
	Other type of program		
	Do you accept the Council's default savings number for this measure?		Yes No
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
Measure life (years)			
Lifetime water savings (years)			
If you are using your own water-savings measure, send your supporting spreadsheet			
Enter the file name and Email to Natalie@cuwcc.org			
			Council's Annual Water Savings 0.041748 AF per device

B) High - Efficiency Urinals (0.5 gpf)

Flex Track	Traditional	Number	Measured water savings (AF/Year)
		Type of program	
		Other type of program	
		Do you accept the Council's default savings number for this measure?	Yes No
		If not, Please provide the following	
		Total Measured Water Savings(AF/Year)	
		Measure life (years)	
		Lifetime water savings (years)	
		If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	
		Council's Annual Water Savings 0.069086 AF per device	

C) Ultra Low Volume Urinals (0.125 gpf)

Flex Track	Traditional	Number	Measured water savings (AF/Year)
		Type of program	
		Other type of program	
		Do you accept the Council's default savings number for this measure?	Yes No
		If not, Please provide the following	
		Total Measured Water Savings(AF/Year)	
		Measure life (years)	
		Lifetime water savings (years)	
		If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	
		Council's Annual Water Savings 0.080603 AF per device	

D) Zero Consumption Urinals (0.0 gpf)

Flex Track	Traditional	Number	Measured water savings (AF/Year)
		Type of program	
		Other type of program	
		Do you accept the Council's default savings number for this measure?	Yes No

Flex Track

If not, Please provide the following:
Total Measured Water Savings(AF/Year)
Measure life (years)
Lifetime water savings (years)
If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water
Savings 0.0921146
AF per device

E) Commercial High - Efficiency Single Load Clothes Washers

Traditional

Number
Type of program
Other type of
program

**Measured
water savings
(AF/Year)**

Flex Track

Do you accept the Council's
default savings number for Yes No
this measure ?
If not , Please provide the following:
Total Measured Water Savings(AF/Year)
Measure life (years)
Lifetime water savings (years)
If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water
Savings 0.116618
AF per device

F) Cooling Tower Conductivity Controllers.

Traditional

Number
Type of program
Other type of
program

**Measured
water savings
(AF/Year)**

Flex Track

Do you accept the Council's
default savings number for Yes No
this measure ?
If not, Please provide the following:
Total Measured Water Savings(AF/Year)
Measure life (years)
Lifetime water savings (years)
If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water
Savings 1.032250
AF per device

G) Cooling Tower pH Controllers

	Traditional	Flex Track	Measured water savings (AF/Year)
	<p>Number</p> <p>Type of program</p> <p>Other type of program</p>		
	<p>Do you accept the Council's default savings number for this measure ? Yes No</p> <p>If not, Please provide the following:</p> <p>Total Measured Water Savings(AF/Year)</p> <p>Measure life (years)</p> <p>Lifetime water savings (years)</p> <p>If you are using your own water-savings measure, send your supporting spreadsheet</p> <p>Enter the file name and Email to Natalie@cuwcc.org</p>		<p>Council's Annual Water Savings 3.981543 AF per device</p>

H) Connectionless Food Steamers.

	Traditional	Flex Track	Measured water savings (AF/Year)
	<p>Number</p> <p>Type of program Select an Option</p> <p>Other type of program</p>		
	<p>Do you accept the Council's default savings number for this measure ? Yes No</p> <p>mIf not, Please provide the following:</p> <p>Total Measured Water Savings(AF/Year)</p> <p>Measure life (years)</p> <p>Lifetime water savings (years)</p> <p>If you are using your own water-savings measure, send your supporting spreadsheet</p> <p>Enter the file name and Email to Natalie@cuwcc.org</p>		<p>Council's Annual Water Savings 0.25 AF per Steamer Compartment</p>

I) Medical Equipment Steam Sterilizers

	Traditional	Flex Track	Measured water savings (AF/Year)
	<p>Number</p> <p>Type of program Select an Option</p> <p>Other type of program</p>		

Flex Track

Do you accept the Council's default savings number for this measure? Yes No

Council's Annual Water Savings 1.538 AF per device

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

J) Water - Efficient Ice Machines.

Traditional

Number

Type of program Select an Option

Other type of program

Measured water savings (AF/Year)

Flex Track

Do you accept the Council's default savings number for this measure ? Yes No
If not, Please provide the following:

Council's Annual Water Savings 0.0834507 AF per device

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

K) Pressurized Water Brooms.

Traditional

Number

Type of program Select an Option

Other type of program

Measured water savings (AF/Year)

Flex Track

Do you accept the Council's default savings number for this measure? Yes No

Council's Annual Water Savings 0.1534 AF per device

Flex Track

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

L) Dry Vacuum Pumps.

Traditional

Number

Type of program Select an Option

Other type of
program

**Measured
water savings
(AF/Year)**

Flex Track

Do you accept the Council's
default savings number for
this measure ? Yes No

If not, Please provide the following:

Council's Annual Water
Savings 0.064
AF per device

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Traditional Reporting Stop Here, Do not continue



Flex Track Reporting Please Continue...

M) Industrial Process Water Use Reduction.

Number

Type of program

Other type of
program

**Measured
water savings
(AF/Year)**

Type of Process
Water Reduced

If re-using water,
what was the secondary
use of the water?
(such as pre-rince
cycle or landscaping)

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

N) Commercial Laundry Retrofits.

Number of customers				Measured water savings (AF/Year)
Type of customer	hotels campuses prisons laundromats			
Lease / own machines	Lease	Own Machines	Both	
Type of program	Select an Option			
Other type of program				

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

O) Industrial Laundry Retrofits.

Total Number of customers				Measured water savings (AF/Year)
Total Volume of laundry processed annually	Select an Option			
Type of program	Select an Option			

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

P) Filter Upgrades (for pools, spas, and fountains).

Number of pools
upgraded

Number of spas
upgraded

Number of
fountains
upgraded

Type of program Select an Option

Other type of
program

**Measured
water savings
(AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Q) Car Wash Reclamation Systems

**Measured
water savings
(AF/Year)**

Total Number of program participants (accounts)	Conveyor	In-bay
Total Number of vehicles washed annually		
Do you accept the Council's default savings number for this measure?	Yes No	Council's Annual Water Savings 0.00004607 (or 15 gals) per vehicle
If not, Please provide the following:		
Total Measured Water Savings(AF/Year)		
Measure life (years)		
Lifetime water savings (years)		
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org		

R) Wet Cleaning.

Brief description of program	Measured water savings (AF/Year)
Total Measured Water Savings(AF/Year)	
Measure life (years)	
Lifetime water savings (years)	
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	

S) Water Audits (To avoid double counting, do not include device/replacement water savings.)

Number of water audits by type of business	Measured water savings (AF/Year)
Auto	
Food	
Health	
Hotels	

Manufacturing
Membership
Multi-use
Office
Religious
Restaurant
Retail/
Wholesale
School
Other (with
description)
Description of
Other

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

T) Clean In Place (CIP) Technology
(such as bottle sterilization in a beverage processing plant)

**Measured
water savings
(AF/Year)**

Number of
customers
Type of program
Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

U) Waterless Wok

Number	Measured water savings (AF/Year)
Type of program	
Total Measured Water Savings(AF/Year)	
Measure life (years)	
Lifetime water savings (years)	
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	

V) Alternative On-site Water Sources
(For Rain Water Harvesting, commercial
rain barrels are excluded. For Foundation Drain
Water, exclude permeable paving.)

Measured
water savings
(AF/Year)

Select type	Number	Description
Cooling Condensate		
Foundation Drain Water		
Gray Water		
Storm Water		
Rain Water		
Pond and Water Feature Recycling		

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

W) Sub - metering

Measured
water savings
(AF/Year)

Select type Number Description

Condominiums

 Apartments

 Mobile
Homes

Do you accept the
Council's default
savings numbers for this
measure? Yes No

If not, Please provide the following:

Council's Annual Water Savings
Appartments & Condos=0.024419 AF/YR
Mobile Home = 0.056774 AF/Yr

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

X) High Efficiency Showerheads

Measured
water savings
(AF/Year)

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Y) Faucet Flow Restrictors

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Z) Water Efficient Dishwashers

**Measured
water savings
(AF/Year)**

Select type	Number
Rack	
Conveyor	
Other	
Description of Other	
Type of program	Select an Option

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

AA) Hot Water on Demand

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

BB) Pre-rinse Spray Valves of 1.3 gpm (gallons per minute) or less

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

CC) Central Flush Systems

**Measured
water savings
(AF/Year)**

Number

Type of program

Other type of
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org

Other Measures chosen by the Agency

**Measured
water savings
(AF/Year)**

Description of
program

Sample (if
applicable)

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet
Enter the file name and Email to Natalie@cuwcc.org



The fields in red are required.

Agency name:

Reporting unit name
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 5 Landscape

Traditional

Flex Track

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data point also requested in form which are necessary to show that the measure was implemented as described.

Accounts with Dedicated Irrigation Meters

Traditional

Number of dedicated irrigation meter accounts

Number of dedicated irrigation meter accounts
with water budgets

Aggregate water use for dedicated non-recreational
landscape accounts with budgets

Aggregate acreage assigned water budgets for dedicated
non-recreational landscape accounts with budgets

Preserved water use records and budgets for
customers with dedicated landscape
irrigation accounts for at least four years

Yes No

Flex Track

Water Savings from Accounts with dedicated irrigation
meters with water budgets (Acre Feet)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Technical Assistance

Traditional

Number of Accounts 20% over-budget

Number of accounts 20% over-budget
offered technical assistance

Number of accounts 20% over-budget
accepting technical assistance



If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Flex Track

**Measured
water savings
(AF/Year)**

Irrigation Water Use Surveys for Mixed-use and Un-metered Accounts

Traditional

Number of mixed use and un-metered accounts

Number of irrigation water use surveys offered (cumulative, all years)

Number of irrigation water use surveys accepted (cumulative)

Can your Agency estimate the amount of landscape acreage for mixed use and Un-metered accounts

If Yes, Aggregate acreage for mixed use and Un-metered accounts

Yes

No

Estimated water demand from acreage for mixed use and Un-metered accounts

Annual water savings by customers receiving irrigation water savings surveys and implementing recommendations

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Flex Track

Measured water savings (AF/Year)

Financial Incentives

Traditional

Have you implemented and maintained an irrigation equipment retrofit incentive program?

Number of incentives

Dollar value of incentives

Incentive Types

Yes

No

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

Flex Track

Measured Water Savings (AF/YR)

Traditional Reporting Stop Here, Do not continue
Flex Track Reporting Please Continue...

Landscape Flex Track Measure Types

1. Monitor and report on landscape water use

A) Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules (such as faxes, twitter, etc. not included in the previous sections).

**Measured
water savings
(AF/Year)**

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

B) Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.

**Measured
water savings
(AF/Year)**

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Establish agency-wide water budget. (Note that: ETo based water budget in the MWELo changed in 2010 from .8ETo to .7ETo.)

Agency-wide total irrigated area
Per-2010

(Acres)

**Measured
water savings
(AF/Year)**

Agency-wide total irrigated area
Post-2010

(Acres)

Amount of Water Used

(AF/Acre)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

D) Establish agency-wide, sector-based irrigation goal to reduce water use, based on seasonality.

Number of minimum irrigation goal	(AF/Acre)	Measured water savings (AF/Year)
Amount of Water Used per Period	(AF/Period)	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

2. Provide technical landscape resources and training

A) Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.

Enter the Number of:	Measured water savings (AF/Year)
Contacts In Person	
Contacts over the phone	
Contacts via Email	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

B) Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.

Enter the Number of:	Measured water savings (AF/Year)
Audits conducted per year	
Measurement of square footage of Turf areas	
Measurement of square footage of NON Turf areas	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.

Enter the Number of:	Measured water savings (AF/Year)
Events	
Participants	
List Type or Title of Events	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

D) Establish Time-of-Day Irrigation Restrictions.

	Yes	No	Measured water savings (AF/Year)
Describe Restrictions:			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

E) Establish Day-of-Week Irrigation Restrictions.

	Yes	No	Measured water savings (AF/Year)
Describe Restrictions:			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

3. Provide incentives

A) Establish Landscape budget-based rates.

YesNo

Describe Rates:

Measured
water savings
(AF/Year)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

B) Provide incentives for conversions from mixed-use meters to dedicated landscape meters.

Measured
water savings
(AF/Year)

Number of Conversions:

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Provide incentives for installing sub-meters to separate landscape water use

Number of meters installed:

AYUgj fYX
k UHYf'gUJ]b[g
fE: #WUfL

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

D) Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.

Select types of irrigation
equipment upgrades:

Number of devices
installed

Measured
water savings
(AF/Year)

Controllers

Emitters

Soil moisture sensors

Pressure Regulators

Rain shut off devices

Other (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

E) Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.

Acreage of live turf converted to low water-using plants, artificial turf, or permeable surfaces:	Acres	Measured water savings (AF/Year)
---	-------	---

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

F) Provide incentives for conversions from potable to recycled water.

Number of Conversions:	Measured water savings (AF/Year)
Number of Incentives:	
Funds Invested:	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

G) Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)

Number of Conversions:	Measured water savings (AF/Year)
Number of Incentives:	
Funds Invested:	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

4. Participate in local and regional planning and regulatory activities

A) Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

				Measured water savings (AF/Year)
Public Information Programs List				
Agency Type	Describe Involvement	If Ohter: Enter Name		Actions

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)

B) Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

Yes No

Describe Involvement:

Measured
water savings
(AF/Year)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

C) Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.

Yes No

**Measured
water savings
(AF/Year)**

Describe Involvement:

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

5. Develop a holistic approach to landscape water use efficiency

A) Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.

Describe Program:

**Measured
water savings
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file to Natalie@cuwcc.org)

6. Other Measures

A) Other Landscape Measures.

Describe Other
Landscape Measures:

**Measured
water savings
(Af/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)
(Enter the file name and Email file Natalie@cuwcc.org)

City of Sonoma
Table I-2 Urban Water Management Plan checklist, organized by subject

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
PLAN PREPARATION				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		Section 1.2.1 Table 1.2
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		Section 1.2.2 Table 1.3 Appendix A.1
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		Section 1.3 Appendix A.4
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		Section 1.3
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		Section 1.2
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		Section 1.2.2 Appendix A.2 Appendix A.3
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Section 1.3 Appendix A.4
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Section 1.3 Table 1.4

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		Section 1.3 Appendix A.5
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		Section 1.3
SYSTEM DESCRIPTION				
8	Describe the water supplier service area.	10631(a)		Section 2.1
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Section 2.2 Table 2.1
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use." See Section M.	Section 2.3
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Section 2.3 Table 2.2
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Section 2.3
SYSTEM DEMANDS				
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		Section 3.1.1 Section 3.1.2
2	<i>Wholesalers:</i> Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <i>Retailers:</i> Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	Section 1.3 Table 1.4

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Section 6 Sonoma reports through Regional Alliance described in Section 3.1
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Section 3.2
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Section 3.3 Table 3.16
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		Section 3.2.6 Table 3.15
SYSTEM SUPPLIES				
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	Section 4.1
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	Section 4.3
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management.	10631(b)(1)		Section 4.3.2

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
16	Describe the groundwater basin.	10631(b)(2)		Section 4.3.3
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		Section 4.3.3.3
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate “not applicable” in the UWMP location column.	10631(b)(2)		Not Applicable
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate “not applicable” in the UWMP location column.	10631(b)(2)		Section 4.3.4
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		Section 4.3.4
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	Section 4.3.5
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Section 4.4
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.	10631(h)		Section 4.8 Table 4.12
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		Section 4.5
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		Section 4.6

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		Section 4.6.2
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		Section 4.6.2 Tables 4.5 and 4.6
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)		Not Applicable
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		Section 4.6.3 Table 4.7
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)		Section 4.6.3 Section 4.6.4 Table 4.8
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		Section 4.6.5 Table 4.9
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)		Section 4.6.3
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING ^b				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Section 3.4 Section 6
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		Section 5.2
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		Section 5.3 Section 5.4

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		Section 5.7 Table 5.9
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		Section 5.7.2 Table 5.5
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		Section 5.7.3 Table 5.10
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		Section 5.7.4 Table 5.11
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		Section 5.7.4 Table 5.12
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Section 5.7.4 Table 5.13
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		Section 5.7.5
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Section 5.7.6 Appendix E
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Section 5.7.7
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	Section 5.4

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		Section 5.5
DEMAND MANAGEMENT MEASURES				
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	Section 6.1 Section 6.2
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		Section 6.1 Section 6.2
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		Section 6.3
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	Section 6
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	Appendix F

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. It is aligned with the organization presented in Part I of this guidebook. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review.